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OF THE

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ANNUAL REPORT

OF THE

SUPERVISING SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

REPORT TO THE SECRETARY.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL
MARINE-HOSPITAL SERVICE,
Washington, D. C., November 1, 1901.

Hon. L. J. GAGE,
Secretary of the Treasury.

SIR: I have the honor to submit the following report of transactions of the Marine-Hospital Service of the United States for the fiscal year ended June 30, 1901, the same being the thirtieth annual report of the Service and the one hundred and third year of its existence.

While the major portion of this report includes only those transactions prior to July 1, 1901, the officer in charge of the division of insular and foreign quarantine and immigration has embodied in his report supplemental reports from certain stations showing the work to September 15, 1901, and both in his report and in the report of the domestic quarantine division the operations of the Service, in several instances where it was deemed necessary to complete the narration, are reported up to the present date.

Full reports of the Service operations, in detail, by officers in charge of the different divisions of the Bureau follow, but I will give here a review of the work of the Service since November 1, 1900, in brief

PERSONNEL.

The commissioned corps at the close of the fiscal year consisted of 106 officers, including the Surgeon-General, 29 surgeons, 23 passed assistant surgeons, and 53 assistant surgeons. Noncommissioned officers—188 acting assistant surgeons, which includes all officers of this grade in Cuba and the insular possessions, and 49 hospital stewards. Hospital and quarantine attendants, 646. One officer, Asst. Surg. W. R. Edson, resigned September 22, 1900.

ACCOUNTS.

The balance of the marine-hospital fund available at the commencement of the fiscal year was $773,313.42. The expenditures on account of the Marine Hospital Service were $956,865.46. The amount available July 1, 1901, was $726,752.74. The expenditures from this fund

have been larger than usual on account of the growth of the Service and the increased relief furnished, and because Congress purposely excluded marine hospitals from participation in the annual appropriations for repairs, furniture, fuel, light, and water, and from special appropriations for improvements, these items being payable from this fund.

The balance of the appropriation "Preventing the spread of epidemic diseases," available July 1, 1900, was $468,581.96; the appropriation act of March 3, 1901, $500,000; and repayments, $6,233.26, making a total available during the year of $974,815.22. The expenditures were $175,253.41, and the balance July 1, 1901, was $799,561.81.

MARINE HOSPITALS AND RELIEF.

Fifty-six thousand three hundred and eighty-one sick and disabled seamen of the merchant marine were treated during the fiscal year, being 2,026 in excess of the number treated in previous years. There were 13,341 treated in hospital, the remainder being treated as dispensary patients.

There were 1,369 important surgical operations performed requiring the use of anæsthetics.

The Service owns and operates 21 marine hospitals, and operates two additional hospitals in leased buildings (New York, N. Y., and Dutch Harbor, Alaska). There are besides 115 relief stations where patients receive hospital or dispensary treatment. Three relief stations of the second class have been established during the year at the ports of Honolulu, H. I., San Juan, P. R., and Ponce, P. R., and three others at the close of the last fiscal year.

HOSPITALS NEEDED AT NEW YORK AND BUFFALO.

I have to renew my recommendation that the hospital and grounds at Stapleton, N. Y., now rented for the care of patients of the Service, be purchased by the Government for this Service, and that Congress be requested to appropriate a sum sufficient for this purpose.

A marine hospital is also needed at the port of Buffalo, N. Y., and I have to recommend that Congress be requested also to make appropriation for purchase of site and erection of a hospital building at that port.

SANATORIUM FOR CONSUMPTIVES, FORT STANTON, N. MEX.

The equipment of this station is now nearing completion, and the repair of the buildings and the improvement of the reservation have proceeded as rapidly as possible.

Tuberculous patients admitted to hospital at other relief stations have been transferred as promptly as their condition would permit, with resulting benefit to the individual transferred and diminution of the risk of infecting other beneficiaries of the Service. The station has been supplied with modern sterilizing apparatus with a view to preventing the infection of the sanatorium itself.

There were 105 patients admitted to the sanatorium during the year. Eighteen were discharged cured, 42 improved, 3 not improved, and 17 died.

PURVEYING DEPOT, NEW YORK.

ie marine hospitals and quarantine stations in the United States, ii, Cuba, Porto Rico, and the Philippines receive their supplies

through the purveying depot. The Immigration and Revenue-Cutter services, and Coast and Geodetic Survey, also receive some of their supplies through the depot. Nine hundred and seventy-three requisitions were filled during the year.

AID TO OTHER SERVICES.

Aid was extended to other branches of the Government service during the fiscal year as follows:

To the Life-Saving Service, in the physical examination of 1,445 surfmen, of whom 81 were rejected, and the examination of 420 claims of surfmen for the benefits provided by the act of May 4, 1882; to the Revenue-Cutter Service, in the examination of 932 applicants for enlistment, of whom 155 were rejected; to the Steamboat-Inspection Service, in the examination of 1,044 applicants for pilots' licenses, of whom 94 were rejected; to the Coast Survey and Light-House Establishment, in the examination of 4[illegible] applicants for enlistment, of whom 11 were rejected; and to the Immigration Service, in the medical inspection of 472,111 immigrants, the inspection of immigrants being conducted by officers of the Service at 2[illegible] ports of the United States.

SANITARY REPORTS AND STATISTICS.

The Public Health Reports, which are intended for collectors of customs, health officers, and other sanitarians, have now a circulation of 2,2[illegible]. Reports were received during the year from 1,447 cities and towns of the United States, with an aggregate population of 20,929,7[illegible], and from 110 of the principal foreign cities.

In addition to publishing the mortality tables and tables of epidemic diseases as reported from the various cities and towns of the world, reports are published from the officers of the Service and consular officers relative to the health conditions of the countries in which they are stationed. The Public Health Reports for the calendar year ended December 31, 1[illegible], contained 3,183 pages, and were bound in two volumes.

INSULAR AND FOREIGN QUARANTINE.

During the year the Marine Hospital Service has conducted maritime quarantine in Cuba, Porto Rico, Hawaii, and the Philippines.

Floating disinfecting plants are now stationed at Havana, Matanzas, Santiago, and Cienfuegos, and a plant is now in course of construction at the port of Havana for use at Nuevitas. A floating plant has been stationed at San Juan, P. R., and another plant is now completed for use at the port of Ponce, P. R.

Disinfecting machinery has been installed on the channel wharf at Honolulu, Hawaii, and extensive repairs are under way at the quarantine station at Mauliola Island, in the harbor of Honolulu. Inspection stations are also operated at Hilo, Kahului, and Kihei. Repairs and improvements have been made at Mariveles Quarantine Station, near Manila, P. I., including the construction of a wharf, with disinfecting machinery installed thereon, rendering this one of the best equipped quarantine stations under the control of the Service.

Medical officers have been on duty at the ports of London, Liverpool, and Naples, in Europe; also at Quebec, Canada, for inspection of aliens coming to the United States.

The inspection of the seven fruit ports of Central and South

America, namely, Belize, British Honduras; Livingston, Guatemala; Puerto Cortez, Honduras; La Ceiba, Honduras; Bluefields, Nicaragua; Port Limon, Costa Rica, and Bocas del Toro, Colombia, has been reestablished for the purpose of inspecting all vessels bound from said ports to ports in the United States, with a view to facilitating the transportation of fruit without endangering the public health.

Following is a list showing the number of officers at national quarantine stations in our insular possessions:

	Commissioned.	Acting assistant surgeons.	Hospital stewards.
Hawaii	3	3	1
Porto Rico	2	8	1
Philippines	4	1	1
Cuba	5	29	2

Officers have also been on duty at the ports of Vera Cruz, Progreso, and Tampico, Mexico; Rio Janeiro, Brazil; Hongkong, China; Yokohama and Kobe, Japan, for the inspection and certification of vessels and passengers leaving for the United States.

DOMESTIC QUARANTINE.

There were during the year 4,729 vessels inspected and 366 vessels disinfected at national quarantine stations. At the close of the fiscal year the Marine-Hospital Service owned 13 complete maritime quarantine stations and controlled 21 stations where inspection of incoming vessels is conducted by officers of the Service.

FLORIDA QUARANTINE TRANSFERRED TO THE GOVERNMENT.

August 1, 1901, the State authorities of Florida transferred their quarantine stations and functions to the Marine-Hospital Service. They were accepted under the provision of section 8 of the act of Congress approved February 15, 1893, in like manner as the quarantine at Savannah, Ga., was accepted in 1900.

One station, Mullet Key, was purchased under act of Congress June 6, 1900. The other stations were leased for a period of three years. Of the stations thus acquired, 6 are equipped for disinfection, and are located at Fernandina, Miami, Key West, Mullet Key, Carabelle, and Pensacola. The other stations, 5 in all, are for inspection only. The Department has agreed to recommend to Congress legislation necessary for the purchase of the stations, and estimates have accordingly been included in the Book of Estimates for 1903.

In the preliminary measures looking to the ultimate transfer of the Florida quarantines to the National Government credit is due to Surg. A. H. Glennan, who acted as the representative of the Bureau and of the Department, both in bringing about an *entente cordiale* with the Florida State health authorities and at Tallahassee in making known the requirements of the Department with regard to the necessary legislation to be enacted by the legislature of Florida.

TEXAS-MEXICAN BORDER QUARANTINE.

On account of the continued prevalence of yellow fever and smallpox in the Republic of Mexico, the land quarantine at El Paso, Eagle

Pass, and Laredo, Tex., have been maintained as in previous years, and the officers stationed there have exercised supervision over the entry into Texas of all persons from Mexico, and have cooperated in this work with the United States Immigration Service and with the State health authorities. There were 1,104 trains inspected, carrying 77,074 passengers, 186 of whom were detained for observation.

SMALLPOX.

During the year smallpox has been reported in every State and Territory of the Union, with the exception of Arizona, from which no reports have been received.

The number of cases reported for the six months ended December 31, 1908, was 7,796, with 137 deaths, a mortality of 1.75 per cent.

For the six months ended June 30, 1909, 30,710 cases were reported with 552 deaths, a mortality of 1.79 per cent.

For the whole year the number of cases was 38,506 and deaths 689, mortality 1.77 per cent, as compared with 15,063 cases and 735 deaths during the year ended June 30, 1908, a mortality of 4.8 per cent.

Thus it is seen that while more than twice as many cases have been reported during the year just ended, the mortality has been less than half what it was in the preceding year. This is probably to be explained by the fact that cases as well as deaths were more fully reported during the year just ended, while in the preceding year, although most of the deaths from smallpox were reported, there is no doubt that a great many cases of the disease, for various reasons, were not reported. According to this explanation the lower figures, 1.77, are nearer the correct mortality, and even this may be a little excessive, as deaths are more apt to be reported than cases.

As in previous years the Marine-Hospital Service has rendered assistance to State and local boards of health by furnishing advice and detailing officers to make investigations and assist the State authorities in putting into execution proper regulations. The detail of officers made last year to Cape Nome and Dutch Harbor, under authority of an Executive order, was renewed this year, and in the spring of 1909 an officer was sent to make a careful investigation of smallpox conditions in southeastern Alaska. His report showed a widespread dissemination of smallpox in that region.

In view of the unusual prevalence of smallpox throughout the United States and to aid in a way the suppression of it, two pamphlets relating to the diagnosis, prevention, and suppression of the disease, which were prepared by officers of the Service, were mailed to the health officers or other interested persons in towns where smallpox was reported to be present. In this manner these pamphlets were sent to 2,100 towns, and into every State and Territory of the United States, except one.

PLAGUE IN SAN FRANCISCO.

The existence of bubonic plague in San Francisco, which was first officially reported on March 7, 1908, and of which mention was made in my last report, was conclusively confirmed by a commission appointed by the Department, consisting of three bacteriologists of the highest reputation, and with no previous connection with Government service, who reached San Francisco in the latter part of January 1908, and, after an exhaustive investigation, rendered a report so conclusive in its nature as to result in measures being taken to cleanse

Chinatown, where the plague existed. In accordance with an agreement between the Department and the authorities of the State of California and city of San Francisco, the work of inspection, isolation, and disinfection in Chinatown, San Francisco, was carried on by a corps of physicians and employees of the State and city under the advice and direction of a surgeon and a corps of assistants of the Marine-Hospital Service. This work was completed on June 21, at which time 1,180 houses containing 14,117 rooms, had been disinfected at a cost of about $75,000, the burden of expense falling upon the local and State authorities, the Treasury Department paying only the salaries and incidental expenses of its own officers. Since the completion of the work, an organization has been maintained for the purpose of making examinations of the sick and dead in Chinatown, and assisting, when requested, in the disinfection of premises where cases are found. Fifty cases have been reported from March 6, 1900, to the present time, 32 of which occurred since October 14, 1900.

The difficulties connected with the work in Chinatown are set forth in the detailed account of transactions published in the report from the division of domestic quarantine.

YELLOW FEVER.

There has been no yellow fever in the United States since my last report, and, with the exception of a few cases that were reported in Natchez in November of last year, there has been no yellow fever in the United States since the fall of 1899. Reports have been received of the existence of yellow fever in Brazil, Colombia, Costa Rica, Cuba, France (on steamship at Havre), Haiti, Jamaica, Mexico, Salvador, San Domingo, and west Africa. Brazil, Cuba, and Mexico furnished a very large majority of the cases. In Cuba, from July 1 to December 31, 1900, there were 1,279 cases, with 298 deaths, a mortality of 23.3 per cent; from January 1 to June 30, 1901, 114 cases, with 30 deaths, a mortality of 34.2 per cent.

The proposition to bring about an international agreement of the American Republics for the sanitation of certain seacoast cities, with a view to the elimination of yellow fever therefrom, which was referred to in my last two reports, has been generally so favorably received that, by invitation, a plan to effect such an agreement was submitted by myself to the chairman of the United States delegation for presentation to the conference of American States now in session in the City of Mexico.

YELLOW-FEVER INSTITUTE.

Recognizing the importance of arriving at full and definite conclusions in regard to all questions concerning yellow fever, its etiology, epidemic history, method of spread, and the influence that this will have on quarantine and quarantine regulations, there has been established within the Service (with Department approval) a yellow-fever institute, the object of which organization will be "to collect all facts concerning yellow fever; to designate the specific lines of investigation to be made, and to make them."

The membership of the institute will consist of officers of the Marine-Hospital Service, and others specially qualified, who will become members by invitation. A full account of this institute is contained in the report of the division of domestic quarantine.

LEPROSY COMMISSION.

On December 15, 1899, three officers of the Service were designated as a commission to put into execution the provisions of the act of Congress, approved March 2, 1899, providing for an investigation of leprosy in the United States. This commission has nearly completed its labors, having made exhaustive inquiry in every State, county, city, town, and hamlet in the United States, and will render its report for submission to Congress on December 1 next.

HYGIENIC LABORATORY.

One hundred thousand doses of the vaccine for bubonic plague have been prepared in the hygienic laboratory. This vaccine, known as Haffkine prophylactic, is an efficient preventive against this disease. It was sent to the Philippine Islands, to Hawaii, and to all our ports on the Pacific coast. Horses were treated in order to obtain a curative serum for yellow fever, plague, typhoid fever, and pneumonia.

Studies were made with the bacillus causing bubonic plague in order to determine its viability under all possible conditions. The results of these experiments, which appeared in a laboratory bulletin (No. 4) entitled "The viability of the bacillus pestis," has a direct practical bearing upon quarantine practice.

Experiments were also made with the sulphur dioxide and formaldehyde gas, in order to determine their value as disinfecting agents. Laboratory bulletins were issued on both of these subjects.

NEW LABORATORY BUILDING.

The last Congress appropriated the sum of $[illegible] for a new laboratory for "the investigation of infectious and contagious diseases and matters pertaining to the public health." The preliminary plans for the construction of the building are now being drawn. The laboratory has long outgrown its present quarters, and the new building will present the possibilities of more work and an enlarged scope, the need of which has been felt.

LEGISLATION NEEDED.

I beg leave to invite attention to the act of Congress heretofore quoted, approved March 3, 1901, making appropriation for a new laboratory building and declaring it to be "for the investigation of infectious and contagious diseases and matters pertaining to the public health." The terms of this act, together with the enforcement of the national quarantine laws, and other duties imposed upon the Marine-Hospital Service relating to the public health, make necessary, in my opinion, some legislation by Congress looking to the increased efficiency of the Marine-Hospital Service as a public health service. It is my intention, at an early date, to prepare a measure of this character for your approval and submission to Congress.

I have the honor to remain, respectfully,

WALTER WYMAN,
Surgeon-General Marine-Hospital Service.

DIVISION OF PERSONNEL AND ACCOUNTS.

19

REPORT OF THE DIVISION OF PERSONNEL AND ACCOUNTS.

By George Purviance,

Surgeon, U. S. Marine-Hospital Service, in Charge.

COMMISSIONED MEDICAL CORPS OF THE SERVICE.

At the beginning of the fiscal year, July 1, 1900, there were 107 commissioned officers in the service, and no additional officers were commissioned during the year.

The corps lost 1 officer, Asst. Surg. W. R. Edson, who resigned September 22, 1900.

Two assistant surgeons were promoted to the grade of passed assistant surgeon.

The corps consists at the close of the fiscal year of 106 commissioned officers, as follows:

Supervising Surgeon-General	1
Surgeons	29
Passed assistant surgeons	24
Assistant surgeons	52
Total	106

BOARDS CONVENED.

Two boards have been convened for the examination of officers for promotion from the grade of assistant surgeon to passed assistant surgeon, and all officers ordered to examination for promotion have passed successful examinations.

Two boards were convened to make physical examination of applicants for appointment to position of cadetship in the Revenue-Cutter Service (boards were convened May 29 and June 7, 1901).

One board was convened to make physical examination of Second Assistant Engineer R. F. Halpin, Revenue-Cutter Service, February 5, 1901.

One board was convened to consider plans relative to establishment of a quarantine station at Mullet Key, Florida, November 17, 1900.

Board convened in New York (purveying depot) for revision of supply table, October 24, 1900.

Surgeon Austin was detailed as chairman of a board to be convened in Philadelphia, Pa., from time to time, for the purpose of reexamining such rejected immigrants as should appeal to it, March 28, 1901.

NONCOMMISSIONED OFFICERS.

ACTING ASSISTANT SURGEONS.

There were on duty at the beginning of the fiscal year 119 acting assistant surgeons and 43 temporary acting assistant surgeons, making

a total of 162. During the year 4 acting assistant surgeons have died, 6 resigned, and 14 have been appointed. One hundred and thirty-seven temporary acting assistant surgeons have been appointed and 115 separated from the service by limitation of appointment and resignation.

The total number in the service at the close of the fiscal year is 188.

All temporary acting assistant surgeons on foreign and domestic quarantine and epidemic duty are included in the above statement.

HOSPITAL STEWARDS.

The total number of hospital stewards at the beginning of the fiscal year was 44, divided as follows:

Hospital steward and chemist	2
Hospital steward and assistant chemist	1
Hospital steward, chemist, and special disbursing agent	1
Senior hospital stewards	23
Junior hospital stewards	17

One senior hospital steward died, 1 senior hospital steward was promoted to the grade of hospital steward and chemist, 1 junior hospital steward resigned and 1 was promoted to be hospital steward and disbursing agent, and 4 junior hospital stewards were promoted to the grade of senior hospital steward.

Five eligibles were certified by the Civil Service Commission and appointed junior hospital stewards, and 1 senior hospital steward was reinstated upon certification of the Civil Service Commission.

The total number of hospital stewards of the three grades at the close of the year is 49.

HOSPITAL AND QUARANTINE ATTENDANTS.

There were at the beginning of the fiscal year 547 attendants; 1,038 have been appointed and 970 have been separated from the service by reason of resignation, death, desertion, and removal for cause. The following tables exhibit the transactions of the division as regards these employees:

Branch of service in which employed.	In service July 1, 1900.	Appointed during year.	Separated from service.	In service June 30, 1901.
Marine-Hospital Service	397	544	497	444
Quarantine	150	205	189	166
Epidemic	31	289	284	36
Total	578	1,038	970	646

The number in the service at the close of the year is 646, exclusive of those employed in island possessions and Cuba, which are accounted for as follows:

	In service July 1, 1900.	Appointed during year.	Separated from service.	In service June 30, 1901.
Hawaii	2	36	23	15
Porto Rico	8	20	10	18
Philippine Islands	12	73	47	38
Cuba	129	177	199	107

SPECIAL DETAILS AND APPOINTMENTS OF COMMISSIONED AND NON-COMMISSIONED OFFICERS, CHRONOLOGICALLY ARRANGED.

Nine temporary acting assistant surgeons were appointed July 1, 1900, for duty at various ports in Mississippi, for the purpose of obtaining daily information as to the health of their respective localities, and for the further purpose of procuring immediate reports of any suspected cases of yellow fever. Their services were dispensed with September 30, 1900.

Surg. A. H. Glennan was detailed chief quarantine officer of the island of Cuba, relieving Surg. H. R. Carter July 6, 1900.

P. A. Surg. A. R. Thomas, on duty in the office of the United States consul at London, England, was, on August 28, 1900, ordered to proceed to Glasgow, Scotland, to make special investigations on plague. On January 15, 1901, he was ordered to Shields, England, for the same purpose.

Surg. D. A. Carmichael was detailed as chief quarantine officer of the Territory of Hawaii August 31, 1900.

Asst. Surg. C. H. Lavinder was detailed as chief quarantine officer of the island of Porto Rico August 31, 1900, and continued to act as such until relieved by Asst. Surg. H. S. Mathewson, who was, under orders of October 9, 1900, detailed as chief quarantine officer of said island.

Asst. Surg. J. F. Anderson was relieved from duty in the office of the United States consul at Vienna, Austria September 1, 1900, and assigned to duty in the offices of the United States consuls at London and Liverpool, England, and on January 5, 1901, he was, upon the request of the Commissioner-General of Immigration and approval of the Secretary of the Treasury, assigned to duty as medical inspector of immigrants at Liverpool, England. He was relieved from duty as such medical inspector by Bureau order of August 14, 1901, and ordered to the United States for duty.

Asst. Surg. J. W. Kerr was assigned to duty at Hongkong, China, September 1, 1900.

Surg. J. J. Kinyoun was directed to proceed to Victoria, British Columbia, September 7, 1901, for the purpose of investigating the cause of vessels from that port carrying persons and crews who suffered from smallpox. As a result of his observations he submitted the nomination of two resident physicians for temporary employment at the ports of Nanaimo and Chemainus, whose services were discontinued in March, 1901.

P. A. Surg. C. P. Wertenbaker was, on September 10, 1900, directed to proceed to Galveston, Tex., for the purpose of rendering all possible assistance toward the relief of sufferers from the flood. A hospital steward was also sent from New Orleans to assist the medical officer.

Asst. Surg. D. H. Currie was detailed to take charge of the laboratory exhibit at Indianapolis, Ind., October 12, 1900.

P. A. Surg. J. A. Nydegger was relieved from duty at Manila, P. I., October 31, 1900, and ordered home on account of sickness. Two additional medical officers were assigned to duty in the Philippine Islands during the year.

P. A. Surg. J. B. Stoner was relieved from immigration duty at Quebec, Canada, on November 30, 1900.

Surg. H. W. Austin was detailed as medical officer in command of the Delaware Bay and River quarantine stations, December 5, 1900.

DIVISION OF PERSONNEL AND ACCOUNTS.

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of the cells. This defect abolishes the phenomena of regeneration, in the sense that the protoplasm reproduces the receptors as a result of their possession of their natural functions.

Following one of the laws of biology, this regeneration is not limited to the compensation of the defect, but passes the limit. There is an overproduction. This overproduction may go on to such a degree by the repeated injections of toxins that finally there results a detachment of these receptors, regenerated in excess, into the circulation.

(13) The free circulating receptors of the protoplasm in the blood constitute antitoxins. They retain their original property of chemically fixing the haptophore group of the toxins.

(14) This theory of the production of antitoxins explains the great multiplicity of antitoxins and their specific character on the basis of physiological processes, and does away with the necessity of attributing to the organism an enigmatical intervention.

(15) According to their origin the antitoxins have a purely chemical relation to the toxins. The two bodies unite to form a new substance indifferent to the organism, as has been proven by the work of Fraser, Ehrlich, Cherry, Martin, etc.

(16) It follows from an exhaustive study of the conditions of neutralization of the toxins by their respective antibodies that poisons contained in a bouillon culture, especially those produced by the bacillus diphtheriæ, have an extremely complex composition.

(17) The bacillus of Loeffler produces two kinds of substances: (1) Toxins, (2) toxones, both of which have the property of fixing specific antibodies, and possess in consequence the same haptophore group. On the other hand, the toxophore complex of the toxones exerts upon the organism a feebler and sensibly different action than do the toxophore group of the toxins (absence of the power of causing neuroses, producing later paralysis.) (Madsen, Ehrlich.)

(18) All bouillon cultures of bacillus diphtheriæ contain in addition products of the modification of the toxins, having no toxicity, but capable of fixing the antibodies. These are the toxoids.

The origin of the toxoids is due to the fact that the complex toxophore of the molecule of toxins is much more unstable than the haptophore, and are destroyed much more readily by chemical and thermic agencies.

This observation is of particular importance, from the fact that the fluid poisons of diphtheria spontaneously weaken in this way—that the toxicity of the bouillon is decidedly lessened, while its power to neutralize antitoxin is perfectly preserved. There is a quantitative modification.

(19) We must admit the existence of several kinds of toxoids, corresponding to their different origins. Several facts seem to indicate that having been given the complexity of construction of the toxophore group the complete destruction of the molecule of toxin may take place gradually, and that if a suitable treatment is employed it is possible to obtain toxoids having a partial toxicity.

(20) It follows that it is possible to provoke the production of antibodies, not only by using toxins, but by using toxoids as well. In fact it is possible readily and rapidly to immunize animals as susceptible to tetanus as the mouse and guinea pig by administering toxoids only.

So that when sick individuals who are very susceptible are to be treated, toxoids will have the very first consideration.

(21) Further experiments have shown that the two groups toxophores and haptophores of the molecule of toxin are also found in certain ferments.

The hypothesis of Morgenroth on the existence of haptophore and zymophore group in the lab. ferments has been recently verified by Myers & Bashford, who have discovered the zymoides analagous to toxoids.

(22) The most recent researches treating of a new class of important cellular poisons, represented in particular by the bacteriolysines, the hemolysines, cytolysines (Pfeiffer, Bordet, Landsteiner, von Dirgern, Metchnikoff), have shown that these poisons have a very complex composition.

(23) The fact that the immunity bodies have a specific affinity for the cells (bacteria, red globules, spermatozoids) that were used to immunize the animal is explained by the theory of side chains, in admitting the existence of receptors having two groups possessing affinities of different combinations.

The immunity produced by bacteria and by antitoxins has many points in common, and finds its explanation in this theory.

IMMUNITY.

[illegible] emphasizes the necessity of recognizing two kinds of immunity:

I. Natural immunity — natural resistance.

II. Specific immunity.

[illegible] Natural immunity, [illegible] the case of the innate [illegible] of certain organisms against [illegible] due to the bactericidal properties of the alexines contained in the body [illegible] and in certain cells of the [illegible].

[illegible] hesitates to propose a [illegible] theory to explain immunity [illegible] of the fact that the alexines of the serum are adequate only in exceptional [illegible] to explain the [illegible] independent of the action of the [illegible] the other hand [illegible] the alexines [illegible]

[illegible]

There are no specific bactericidal substances, no specific hemolytic substances. In both cases we have to do with a combined action. That is, the bacteria and erythrocytes are prepared for the action of the normal alexins by the specific action of the antibodies. It is a matter of indifference whether the alexins are produced by the same species of animal in which the antibodies are produced by specific inoculations.

This preparation of the erythrocytes consists, as can be shown, in the specific hemolytic immunity, in the attraction and loose combination of the antibodies with the specific erythrocytes, in consequence of which they are dissolved by the normal alexin. Probably it is the same in the working of specific bacterial immunity. It may be affirmed with certainty that the action of antitoxin in neutralizing a specific toxin is due to a mutual combination. According to this theory the true principle of specific immunity consists always and in every case in an attraction and special combination between the antibodies and the object of specific reaction—toxin, bacteria, erythrocytes, etc.

The enigma reserved for the future lies principally to find out the nature and origin of the antibodies; in addition also the exact nature of the specific combination which takes place between antitoxin and toxin, antibody and object of reaction.

CONCLUSIONS.

"Natural resistance" and "specific immunity" depend upon different principles. The first is characterized by an alexin, the latter by the specific antibodies.

The alexins are killed at 60°. They differ according to the animal species which produces them. They show no attraction for the object of reaction—i. e., the bacteria, erythrocyte, etc., used in the inoculation.

The antibodies are not destroyed at 65°. They do not differ according to the species of animal which produces them, but according to the reagent used in producing them, and they have a specific attraction for this reagent, with which they combine.

Alexin and antibody exist in the organism at the same time and often work in combination. Natural resistance and specific immunity can operate in the same organism at the same time. For instance, the cure of a case of typhoid fever can be caused by an augmentation of the natural resistance concurrently with the production of the specific antibodies. It is the work of clinical medicine to diagnose and differentiate each of these conditions and changes.

METCHNIKOFF ON IMMUNITY.

Enlarging upon the general conception of immunity, Metchnikoff, after having shown that the most general phenomenon in natural and acquired immunity consists in a phagocytic reaction, stated that he considered that the immunity of infectious diseases is but a particular instance of the reabsorption of former elements that takes place generally, and that the phagocytes act in virtue of their sensibility and their power to ingulf and digest these formed elements. When the body is in a refractory state (state of resistance) the microbes are never eliminated by the emunctories; they are always disorganized, just as the old formed elements, such as the leucocytes and other objects, are eaten and destroyed.

This dissolution is in fact a true process of digestion, analogous to extracellular digestion. Here, just as in the inferior organisms, the digestion is intracellular.

This intracellular digestion is accomplished by aid of ferments, among which cytase occupies first place.

The cytases have their origin in the leucocytes. They may be prepared by making an emulsion of the marrow, the spleen, the lymph glands. A cytalytic fluid is thus obtained, which is destroyed by heating to 50°.

The cytase in the body remains confined in the phagocytes and does not diffuse into the plasma. This diffusion only takes place when there is a destruction of leucocytes or phagocytes, as, for example, in the serum about the formation of a coagulum.

As a rule, the cytases can not exist alone; they need other substances. They are aided in their digestive functions by a substance more resistant to heat, i. e., philocytase, analogous to the substance intermediaire of Ehrlich. This philocytase is the product of the phagocytes which is most often excreted in the plasma. The presence of this philocytase is not, however, necessary, for not only in natural immunity, but in certain cases of acquired immunity the organism can resist without the presence of philocytase in the blood.

The antitoxins are then, if not entirely, at least in part, the products of the phagocytes, which remain the true agents of immunity, both natural and acquired.

MALARIA

Laveran read a report upon some of the advances made in this important subject. The following is a summary:

The hæmamœba malariæ presents two varieties which may be called parva and magna, according to the dimensions of the parasites.

When a malarial patient has the small variety (parva) in his blood, say in Senegal, and returns to France and then suffers a relapse, invariably the large variety (magna) is now found in his blood. Therefore these are not different species, but varieties of the same parasite.

The technique applicable to the study of malaria has made notable progress during the past years. Koch, Ziemann, Nocht and Ruge have perfected the method of Romanowski. Laveran has shown a method of staining the nucleus of the hæmatozoon in the red corpuscles more certain and easier than the original or modified method of Romanowski.

The researches of Simond, Ed. Schaudinn and Swellenkiewicz have cleared up the much discussed question of flagella of the hæmatozoon malariæ.

It is now known that the flagella are the male elements destined to fecundate the female elements.

The observations of McCallum, Opie, Koch and Marchiafava leave no doubt as to the role of the flagella. Involution or degenerate forms of the hæmatozoon do not then exist.

In 1897 Laveran gave out the hypothesis that the *H. malariæ* is found outside the human organism as a parasite in the mosquito. This hypothesis has been verified by Ross and confirmed by many observers, Koch, Grassi, Bignami and Bastianelli.

All the anopheles seem to have the power to propagate malaria. In many places of the world the coexistence of malaria and anopheles has been confirmed; on the contrary, in healthy places only culex are found.

The anopheles then which have stung a malarial person are infected; healthy ones. The germs (blastes of Ross) are found in the salivary glands of such anopheles and are inoculated with the saliva from the salivary glands. It is now certain and sure that malaria is always carried in this way.

Malaria is often contracted in unhabitable localities. The fact that the turning up of the soil and of chilling often causes a sudden outbreak of endemic paludism is also difficult to explain if we admit that malaria is always inoculated by the sting of anopheles which have sucked malarial blood.

Although certain points are still obscure, there is now no doubt that, as far as the prophylaxis of malaria is concerned, measures to protect against the mosquito are of the first importance.

It is important also, in order to prevent the sudden outbreak of malaria in old marshy regions, to guard the sick against the bites of the anopheles.

Koch has made observations in Africa favorable to the existence of an immunity acquired by the natives of marshy regions. This immunity is the result of attacks of malaria during youth. Many facts show that the inhabitants of a marshy country frequently have endemic hematozoa rather than the true acute chills of malaria but this does not merit the name of immunity.

The attempts made to establish an artificial immunity against malaria have so far failed.

THE CAUSE OF CANCER

This subject was ably treated by Borrel. The following is a summary:

He pointed out that epithelial cancers are always characterized by proliferation of the epithelial cells and that the power of the cancer cells to have the power of producing an abnormal proliferation of epithelium.

We only know that malignancy of the nature of the mesoderm can be proven, but it has not been proven that the groups of cells in man are true epithelial tissues or cancer.

There is a special evolution of the epithelial cells and of the parasites in all cases of cancer.

The cause first showed that the figures given to support the theory of coccidia are of altogether another nature. There exists intracellular bodies presenting the form of round bodies or of transitional forms.

This vacuolization is frequent in cases of glandular origin and frequently a crescent mucus is found in the interior. With a new technique Saw Lock made comparative studies of the vacuoles and of the young stages of the coccidia of the rabbit. The parasite presented itself often not in the form of an amœba lodged in a vacuole which often contained mucus.

According to Borrel there exists again an atypical evolution of the cancer cell—of the attraction sphere—or the idiosome, and Sawchenko himself has abandoned the blastomycetic.

The recently developed theory that cancer is due to a yeast was carefully reviewed. This is the blastomycetic theory.

Bra has shown the development of a tumefaction of the skin under the influence of a yeast, as Curtis showed in his study on the saccharomyces tumefaciens subcutaneous. This is tumefaction—not tumor.

San Felice, Plimmer, and Sawchenko admit the blastomycetic theory and interpret as yeasts all the old figures described as amœba.

Malfoid and Saleo have shown that yeasts which have been isolated from tumors are sometimes impurities from a secondary infection, or even from the air of the laboratory.

Borrel has well shown that the inoculation of a yeast is accompanied by a reaction which may end in the formation of epithelioid cells, but not epithelial cells.

The role of the yeasts has been studied by San Felice, by Wlaeff, who obtained in several cases out of numerous experiments a tumor resembling adeno-carcinoma.

In the opinion of Borrel up to the present time neither the blastomycetic origin nor the bacterial origin of cancer has been proved.

* * * * * * *

Leopold, of Dresden, read a paper on the blastomycetic origin of cancer and showed an organism belonging to the moulds, isolated by Bra, and found in the blood and pathological tissue. In the discussion Metchnikoff expressed the opinion that, contrary to the views of Leopold and Bra, he believed their work rather proved that the organism isolated by them was not the cause of cancer, because the tumors produced in their experimental work have not the true epithelial character.

TUBERCULOSIS.

Very interesting conclusions are drawn by Martin and Vandremer in their studies of peritoneal tuberculosis of the guinea pig, showing the way tubercular peritonitis may be prevented, and giving the rationale of the cure of this form of the disease:

If tubercle bacilli are injected into the peritoneal cavity of a guinea pig, there usually results a tubercular peritonitis, with the formation of readily visible tubercles. If a small quantity of a young culture is used, this always happens. If, on the other hand, a large quantity of an old culture of tubercle bacilli (at least six months old) is injected into the peritoneal cavity, there results in certain cases death from cachexia, and at the autopsy no tubercles are found in the organs, or very few are found, not sufficient to explain the death of the animal.

Of seven cultures examined the authors were able to find only one of them that always kills the guinea pig rapidly when a large quantity of a six-months-old culture is injected into the peritoneal cavity.

They think that the microbe acts by its poisons, and that the guinea pig succumbs to a true intoxication. This is the more likely, since the culture which gave the most constant results was the same one that in previous experiments on tubercular meningitis and in the study of the poisons of tuberculosis gave the largest quantity of these poisons; that is, killed a guinea pig in less than twenty-four hours when 0.1 c. c. of a three-months-old culture filtered through a Chamberlain bougie was injected into the brain.

To verify this hypothesis Martin and Vandremer sought a method to kill the bacilli without destroying the poisons. This they accomplished by treating the bacilli with ether.

The tubercle bacillis must remain in ether a long time in order to be killed.

In order to be certain that all are killed and to accomplish this more quickly it is necessary to first wash the bacilli in ether, then dry them, then replace in ether. When the operation is well done, all the gummous substance disappears and the bacilli form with the ether a true emulsion. The ether is again evaporated and the microbes dried and diluted with water injected into the peritoneal cavity of a guinea pig.

The ether has another action—it dissolves a part of the tubercle bacilli; that is, the fatty material. If examined under the microscope after three weeks in ether, more than half the microbes do not stain by Ziehl's method. These bacilli, dead and deprived of fat, still contain the poison, but all traces of the organism do not contain an equal amount, and it is not possible to surely kill a guinea pig with all tubercle bacilli treated with ether.

With the very toxic microbe described above, the results, on the contrary, are constant. The tubercle bacilli treated with ether and injected into the peritoneal

[illegible] of guinea pigs kill them by [illegible] variable time depending upon the [illegible] used.

With [illegible] gram of the microbian bacillus the guinea pig dies in forty-eight hours, with [illegible] gram it dies in eight days, with [illegible] gram it dies in [illegible] month, with [illegible] gram it dies in six weeks.

The autopsies do not show a trace of tubercular lesions. The intestines are often hyperæmic. The spleen is not apparently enlarged. The liver is red and on the cut surface. The suprarenal capsules are always enlarged and open section are hyperæmic in the center. A triple effusion into the pleura, pericardium and peritoneum is frequently noted. In the rapid deaths this effusion is often abundant. The lungs are strongly congested.

This point established, is it possible to prevent the death of the guinea pig?

Following the work of Metchnikoff and Roux, I have, the authors tried to increase the resistance of the guinea pig by producing an artificial peritoneal hyperæmia. In order to accomplish this they injected into the peritoneal cavity of the guinea pig [illegible] of an ounce of two-thirds [illegible] serum of a guinea pig. Twenty-four hours after [illegible] they injected [illegible] more than bacilli treated with other and saw [illegible] guinea pigs resisted the lethal dose of tubercle bacilli treated with other. [illegible] bacilli treated with fever. The guinea pigs prepared did not fall [illegible] weight. [illegible] but there was no consecutive fever, and after a year they are alive and well.

To resume:

(1) These experiments [illegible] tubercular [illegible].

(2) They show also that [illegible] tubercle bacilli can [illegible] without producing tubercles.

(3) Finally it explains the [illegible] and the best treatment would evidently be [illegible] artificial hyperæmia.

[illegible]

Marmorek pointed [illegible] the tubercle bacillus.

If in a tuberculous [illegible] very young [illegible] that the bacilli have a different [illegible] It is fact while the [illegible] bacilli stain by the [illegible] methylene blue. Further [illegible] of Ziehl-Kostin [illegible] the many [illegible].

This affinity [illegible] which they [illegible].

A particle [illegible] new medium [illegible] by the fact that [illegible] tissue remains [illegible] passage we arrive [illegible] with the primitive [illegible] of red granules [illegible] spores. The last fact [illegible] the [illegible] ways against which [illegible].

[illegible]

[illegible] membrane the [illegible] ways against. The [illegible] may [illegible] this agent.

[illegible]

[illegible] human origin so that it resembles the [illegible].

[illegible]

They cultivated the organism on potato bathed in 6 per cent watery glycerin solution. Some colonies take the fatty, bulbous appearances. By cultivating these colonies they finally arrived at an organism having the characters of the tubercle bacillus of birds. The young bacilli of these cultures decolorized very readily with acids. As to virulence, this also was modified. The organism no longer gave the villemin type, but the yersin type, and became very virulent for chickens.

REPORT ON THE PROCEEDINGS OF THE COMMISSION CHARGED WITH THE REVISION OF THE NOMENCLATURE OF CAUSES OF DEATH AT PARIS, FRANCE, AUGUST 18-21, 1900.

(Bertillon classification.)

By P. A. Surg. M. J. ROSENAU, Vice-President of the Commission.

PARIS, FRANCE, *November 30, 1900.*

SIR: I have the honor to submit herewith my report upon the work of the commission charged to revise the nomenclature of the causes of death.

This nomenclature has been recommended for general adoption on January 1, 1901, by the International Congress of Hygiene and Demography, by the International Statistical Institute, by the American Public Health Association, and by the International Conference of State and Provincial Boards of Health.

This international revision, which was largely brought about by American registrars, has already been adopted by the following cities and States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Michigan, Indiana, Minnesota, Colorado, etc., Greater New York, Boston, Buffalo, Baltimore, Savannah, Columbus, Milwaukee, Dubuque, Toledo, Washington, Charlestown, etc.

It is important that all these States and cities use a similar translation. I am informed that some of them are waiting for my official translation, and I have therefore to respectfully request that the report be printed as soon as practicable, in order that it may be ready for use for the statistics of 1901.

I have also to respectfully recommend that our Service adopt the nomenclatures in place of the antiquated one now in use.

Very respectfully,

M. J. ROSENAU,
Passed Assistant Surgeon, M. H. S.

SURGEON-GENERAL, Marine-Hospital Service.

[Letter of transmittal.]

PARIS, FRANCE, *November 1, 1900.*

SIR: In compliance with your orders of July 10, I have the honor to state that I attended the meetings of the International Congress charged to revise the nomenclature of the causes of death as the official delegate from the United States.

The commission met August 18-21, 1900, with representatives from twenty-six countries present. The work of the commission consisted largely in revising the old system of nomenclature devised by Dr. Jacques Bertillon, chief of the bureau of municipal statistics of the city of Paris. Although many changes were made in this old system to meet the march of progress, nevertheless the nomenclature as adopted by the commission is essentially the Bertillon system, and the credit and honor is due Dr. Bertillon, not only as being the father of the nomenclature, but for the great industry and zeal shown by him in bringing about international uniformity.

To American registrars, in particular Dr. Cressy L. Wilbur, chief of the division of vital statistics of the State of Michigan, belongs the credit of being most active in bringing about this revision, and in suggesting important improvements.

Inclosed is an extract from the proceedings, which shows the part taken by our country. These few pages from the proceedings also indicate some of the difficulties that confronted the commission composed of members from so many parts of the world, speaking so many different languages.

The work of the commission, as given in the finished nomenclatures, is by no means perfect. There are two reasons for this:

First. The classification is based on the seat of the disease and not its cause. Medicine is not yet a sufficiently exact science to gather mortality statistics according to the cause of the disease.

Second. The nomenclature is a compromise. This is a necessity where so many

varied interests are represented [illegible] to make [illegible] [illegible].

A [illegible] greater value [illegible] perfect.

The [illegible] meet the needs of all countries [illegible].

Any system [illegible] changed with the progress [illegible] establishing an international [illegible] decennial [illegible].

Respectfully [illegible],

M. J. ROSENAU,
[illegible] Surgeon, M. H. S.

[illegible] Marine-Hospital [illegible].

International Commission charged to revise the nomenclature of the causes of death, Paris, August 18–21, 1900.

[illegible]

[illegible] Dr. [illegible] Kingdom of Bavaria [illegible] Dr. W[illegible] statistical bureau [illegible] Dresden [illegible].

[illegible] Dr. [illegible]

[illegible] Prof. de [illegible] chief of the [illegible] former at the University of Vienna, Dr. [illegible] Mr. [illegible] Schlacek [illegible] Vienna [illegible].

[illegible] Dr. [illegible] number [illegible] University [illegible].

[illegible] Dr. [illegible]

[illegible] Mr. [illegible]

[illegible] Dr. [illegible] Copenhagen [illegible] Dr. [illegible]

[illegible] Dr. [illegible] University [illegible]

[illegible] Statistical [illegible]

[illegible] Dr. M. J. Rosenau [illegible] Marine-Hospital Service.

[illegible] Dr. [illegible] of the [illegible] France [illegible] Dr. [illegible] Faculty of Medicine of Paris [illegible]

[illegible] Dr. [illegible]

[illegible] Mr. [illegible]

[illegible] Dr. [illegible]

[illegible] Dr. [illegible]

[illegible] Dr. [illegible] Mexico [illegible] Mexico.

[illegible]

Norway: Dr. Kiaer [illegible]

Netherlands: Mr. [illegible] professor at the University of Amsterdam.

Peru.—Dr. Téobaldo Cancino; Dr. Pablo S. Mimbela, chief of the medical dispensary at the University of Lima; Dr. Neuhaus; Dr. Antoine Perez Roca, professor at the University of Lima; Dr. Armand Velez, dean of the Faculty of Medicine of Lima.

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EXTRACTS FROM THE PROCEEDINGS OF THE COMMISSION.

The proceedings in which the United States took a special part is herewith reproduced. While there was only one official delegate from the United States present at the meetings of the commission, nevertheless its work received considerable attention from American registrars, who communicated their opinion in writing. These suggestions received the careful consideration of the commission.

TUBERCULOSIS.

M. Bertillon (France) spoke against classing all tuberculous diseases together, but preferred to place them under the heading for each organ. This arrangement would enable one without difficulty to know the total number of cases of meningitis, for example, which is very useful, for among so-called "simple meningitis" there are without doubt many that are tuberculous. The same observation applies to peritonitis, enteritis, etc.

Dr. M. J. Rosenau (United States).—The prime importance of tuberculosis makes it indispensable that we may be able to read from a statistical table, without difficulty and without collecting and adding up widely separated figures, the total number of persons dead of tuberculosis. It seems inadvisable, then, to separate tuberculosis under each organ a d thus divide the facts in many places, as is done in the nomenclature of Virchow. Mr. Rosenau, therefore, was opposed to the proposition of M. Bertillon.

After further discussion the commission decided by a vote of 12 to 3 (2 absent) that tubercular diseases should all be grouped together in the same place.

CHOLERA ASIATICA.

Include under this heading, Indian cholera, cholera (without classification), cholera morbus, and epidemic cholera.

Cholera nostras.—Dr. M. J. Rosenau explained to the commission what the sanitary council of the Province of Quebec and other American physicians had previously suggested, viz. that in America "cholera morbus" does not mean "Asiatic cholera."

M. Brouardel (France) thinks that the expression cholera morbus, formerly used to signify cholera asiatica, has become infrequent. He thinks therefore that the words "cholera morbus" may be omitted from the amplification of the heading Cho'era asiatica. This would permit each country to interpret this expression in conformity with current usage.

(Adopted.)

SMALLPOX.

Include under this heading variola, varioloid. Do not include varicella. Frequent complications, meningitis, endocarditis, suppuration, albuminuria.

An American physician suggested that "varicella" be placed under the heading "Variola;" deaths from varicella can be counted without error as due to variola.

Mr. Korösy expressed an analogous opinion. Varicella, he said, never causes death, but when there is a death, it is really variola, and the record should attribute death to this disease.

The statistical department of the city of Vienna was of the same opinion.

Discussion.—Mr. Wurzburger (Germany) spoke against the opinion expressed by Mr. de Kersey. Rare as deaths from varicella are, they are sometimes met with. They have considerable importance in countries such as Germany, which are well protected against variola, for it means much to know whether deaths (whether one or two) are from variola or varicella.

Mr. Wurzburger proposed to retain the text.

(Text maintained.)

OTHER EPIDEMIC DISEASES.

Plague.—Dr. M. J. Rosenau (United States) would like to see peste in the first classification. This disease presents a particular interest from the point of view of international hygiene, and in order to give due warning that a port or country is menaced the weekly publications should publish every case as soon as it is known.

M. Bertillon (France) proposes to leave to each country interested the permission to put this heading in the first classification as well as in its weekly reports.

Put to a vote, the proposition of M. Rosenau was lost: 15 votes against 3.

Leprosy.—Dr. M. J. Rosenau (United States). Leprosy is very rare in the United States. There are very few deaths from this disease each year. However, in view of its importance, the speaker is in favor of making a special heading for leprosy.

M. Jacques Bertillon (France) thinks that this is not very useful, as each country will have permission to develop, according to its needs, the title "Other epidemic diseases." In consequence, Norway or even Bosnia Herzegovina, or the island of Hawaii can take count of this disease.

M. Netter (France) asked that a place be given leprosy following contagious diseases, with which it presents many analogies.

The representatives of Russia and Belgium expressed a similar opinion.

The proposition of the delegate of the United States is adopted.

ORGANIC DISEASES OF THE HEART.

Dr. Cressy L. Wilbur (Michigan) finds that this title lacks precision, and thinks that many deaths are classed under it which are really bad diagnoses.

He also states that there is no expression in French to translate the term "heart failure," which is the special opprobrium of American mortality statistics.

He proposes to class "heart failure" among "ill-defined diseases."

Discussion.—M. Netter (France) remarked that the objectionable expression is found in other forms in other countries. In Germany the expressions "herzlähmung" (paralysis of the heart), "herzschlag" (apoplexy of the heart) have no more signification.

Others expressed the same opinion, and the names are therefore taken out of this heading.

OTHER AFFECTIONS OF THE CIRCULATORY SYSTEM.

Include under this heading "aortic aneurisms (not determined)," "splenic tumor," "splenomegaly," etc.

M. Bernardel (France) finds it bad to count the diseases of the spleen under this heading. It would be necessary either to open a special heading, or better, to consider them under the heading "paludial cachexia," for they are almost always of malarial origin.

M. Rosenau (United States) finds that this solution would have its inconvenience, for splenic diseases in America are not always of malarial origin, and prefers a special heading.

Adopted.

SENILE DEBILITY.

Dr. Cressy L. Wilbur finds the words "senile debility" equivalent to an absence of diagnosis, and proposes to class this heading under "ill-defined diseases."

In the discussion on this question an attempt was made to fix the age after which debility may be called "senile."

M. Bernardel (France) thought that this would be very difficult to do.

The commission was of the same opinion, and the heading was maintained.

ANTHRAX.

An American physician asked that "carbuncle" (due to staphylococcus) be not confounded with "malignant pustule" or anthrax due to bacillus anthracis.

Remarks.—Malignant pustule is a general disease, due to bacillus anthr (charbon), and is included under heading No. 16.

Furoncle, due to staphylococcus, is included under heading No. 127.

The word anthrax is not a synonym for malignant pustule in French—a the case in English.

M. Bertillon (France) believes that the word "anthrax" leads to confusi for in several countries it is synonymous with "charbon," "malignant pustul He suggests, therefore, that it be replaced by "furoncle."

(Adopted.)

INFANTILE DIARRHEA.

Dr. Cressy L. Wilbur (Michigan) and several other American physicians as that an age limit (2 or 5 years) be fixed. The customs followed in the differ bureaus of statistics are very variable in this regard.

The commission fixed the age limit at two years.

PROGRESSIVE MUSCULAR ATROPHY.

An American physician proposed to omit this heading and to add it to "ot diseases of the nervous system," because of the rarity of the disease.

This was done.

CONGESTION AND CEREBRAL HEMORRHAGE.

Dr. Cressy L. Wilbur and several others prefer the word "apoplexy," and "congestion."

The commission decided to retain the text.

OTHER FORMS OF INSANITY.

An American physician asked that it be understood that when an insane per dies of another disease his death be recorded to that disease and not to his me state.

The commission confirmed this opinion.

DYSENTERY.

"Dysentery is placed among the general diseases instead of under disease the digestive system. This was in accordance with the suggestion of Ameri registrars."

ERYSIPELAS.

"Erysipelas is placed among the general diseases instead of under skin disea This will meet the wishes of a large number of American statisticians who c sider the position of erysipelas as a serious objection to the old system. T change was made at the request of several American physicians, as well as other

TUMORS.

"Tumors are now placed in connection with cancers, but separately stat This desirable plan was first introduced, so far as we are aware, in the mortal statistics of the United States census, and the idea was adopted in the classifi tion formerly used in the Michigan registration reports before the adoption the Bertillon system. While the return is to some degree indefinite, a la number of such cases are actually cancers, and it is useful to have the data close connection. Of course certain classes of tumors, as ovarian tumors a fibroids, are elsewhere classified." (Michigan Monthly Bulletin of Vital S tistics, October, 1900.)

The international classification of diseases and causes of death (Bertillon cla fication) as adopted by an international commission, and reported to and adop by the Eighth International Congress of Hygiene and Demography, Pa France, August 18 to 23, 1900.

The need for a uniform comparable system of nomenclature of diseases a causes of death has long been felt by sanitarians and statisticians, and efforts h not been wanting to bring one about, but the difficulties in the way of such international agreement have heretofore seemed insurmountable.

The International Institute of Statistics at the Vienna meeting in 1891 vo (upon motion of Dr. Guillaume, director of statistics of the Republic of Switz

[illegible]

NOMENCLATURE (INDEX) FOR MORBIDITY STATISTICS.

[illegible]

I. General diseases—Continued.
10. Influenza.
11. Miliary fever (sweating fever).
12. Asiatic cholera.
13. Cholera nostras.
14. Dysentery.
14. Repeated. Of which, epidemic dysentery.
15. Bubonic plague.
16. Yellow fever.
17. Leprosy.
18. Erysipelas.
19. Other epidemic diseases.
20. Pyemia and septicemia.
21. Glanders and farcy.
22. Anthrax (malignant pustule).
23. Rabies.
24. Actinomycosis, trichinosis, etc
25. Pellagra.
26. Tuberculosis of the larynx.
27. Tuberculosis of the lungs.
28. Tuberculosis of the meninges.
29. Abdominal tuberculosis.
30. Pott's disease.
31. Cold abscess.
32. White swelling.
33. Tuberculosis of other organs.
34. General tuberculosis.
35. Scrofula.
36. Syphilis—
    A. Primary.
    B. Secondary.
    C. Tertiary.
    D. Hereditary.
36. Repeated. Soft chancre.
37. Gonorrhea (adults).
38. Gonococcal affections of infants.

39.	Cancer and other malignant tumors	of the buccal cavity.
40.		of the stomach, liver.
41.		of the peritoneum, intestines, rectum
42.		of the female genital organs.
43.		of the breast.
44.		of the skin.
45.		of other organs, and unspecified.

46. Other tumors (except of the female genital organs).
47. Acute articular rheumatism.
48. Chronic rheumatism and gout.
49. Scurvy.
50. Diabetes.
51. Exophthalmic goiter.
52. Addison's disease.
53. Leukemia.
54. Anemia, chlorosis.
55. Other general diseases.
56. Alcoholism, acute and chronic.
57. Chronic lead poisoning.
58. Other chronic poisonings of occupations.
59. Other chronic poisonings.

II. Diseases of the nervous system and of the organs of special sense:
60. Encephalitis.
61. Simple meningitis.
61. Repeated. Of which, epidemic cerebrospinal meningitis.
62. Progressive locomotor ataxia.
63. Other diseases of the spinal cord.
64. Cerebral congestion and hemorrhage.
65. Cerebral softening.
66. Paralysis, cause unspecified.
67. Paretic dementia.
68. Other forms of insanity.
69. Epilepsy.

I. Diseases of the nervous system and of the organs of special sense—Continued.
70. Eclampsia, not puerperal.
71. Convulsions of infants.
72. Tetanus.
73. Chorea.
74A. Hysteria.
74B. Neuralgia.
74C. Other diseases of the nervous system.
75. Diseases of the eyes and their adnexa.
75. Repeated. Follicular conjunctivitis.
75. Repeated. Trachoma.
76. Diseases of the ears.
II. Diseases of the circulatory system.
77. Pericarditis.
78. Acute endocarditis.
79. Organic diseases of the heart.
80. Angina pectoris.
81. Diseases of the arteries (atheroma, aneurism, etc.).
82. Embolism and thrombosis.
83. Diseases of the veins (varicos, hemorrhoids, and phlebitis, etc.).
84. Diseases of the lymphatic system (lymphangitis, etc.).
85. Hemorrhage.
86. Other diseases of the circulatory system.
V. Diseases of the respiratory system:
87. Diseases of the nasal fossæ.
88. Diseases of the larynx.
89. Diseases of the thyroid body.
90. Acute bronchitis.
91. Chronic bronchitis.
92. Broncho-pneumonia.
93. Pneumonia.
94. Pleurisy.
95. Congestion of the lungs and pulmonary apoplexy.
96. Gangrene of the lung.
97. Asthma.
98. Pulmonary emphysema.
99. Other diseases of the respiratory system (except phthisis).
V. Diseases of the digestive system.
100. Diseases of the mouth and adnexa.
101. Diseases of the pharynx.
102. Diseases of the œsophagus.
103. Ulcer of the stomach.
104. Other diseases of the stomach (except cancer).
105. Diarrhœa and enteritis (under 2 years of age).
106. Repeated. Of which chronic diarrhœa.
108. Diarrhœa and enteritis (2 years and over).
107. Intestinal parasites.
108. Hernia, intestinal obstruction.
109. Other diseases of the intestines.
109. Repeated. Diseases of the anus and fecal fistula.
110. Acute yellow atrophy of the liver.
111. Hydatid tumor of the liver.
112. Cirrhosis of the liver.
113. Biliary calculi.
114. Other diseases of the liver.
115. Diseases of the spleen.
116. Simple peritonitis (not puerperal).
117. Other diseases of the digestive system (cancer and tuberculosis excepted).
118. Appendicitis and abscesses of iliac fossa.
VI. Diseases of the genito-urinary system and adnexa.
119. Acute nephritis.
120. Bright's disease.
121. Other diseases of the kidneys and adnexa.
122. Urinary calculi.
123. Diseases of the bladder.
124. Diseases of the urethra, urinary abscess, etc.
125. Diseases of the prostate.
126. Nonvenereal diseases of the male genital organs.
127. Metritis.

They cultivated the organism on potato bathed in 6 per cent watery glycerin solution. Some colonies take the fatty, bulbous appearances. By cultivating these colonies they finally arrived at an organism having the characters of the tubercle bacillus of birds. The young bacilli of these cultures decolorized very readily with acids. As to virulence, this also was modified. The organism no longer gave the villemin type, but the yersin type, and became very virulent for chickens.

REPORT ON THE PROCEEDINGS OF THE COMMISSION CHARGED WITH THE REVISION OF THE NOMENCLATURE OF CAUSES OF DEATH AT PARIS, FRANCE, AUGUST 18–21, 1900.

(Bertillon classification.)

By P. A. Surg. M. J. ROSENAU, Vice-President of the Commission.

PARIS, FRANCE, *November 30, 1900.*

SIR: I have the honor to submit herewith my report upon the work of the commission charged to revise the nomenclature of the causes of death.

This nomenclature has been recommended for general adoption on January 1, 1901, by the International Congress of Hygiene and Demography, by the International Statistical Institute, by the American Public Health Association, and by the International Conference of State and Provincial Boards of Health.

This international revision, which was largely brought about by American registrars, has already been adopted by the following cities and States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Michigan, Indiana, Minnesota, Colorado, etc., Greater New York, Boston, Buffalo, Baltimore, Savannah, Columbus, Milwaukee, Dubuque, Toledo, Washington, Charlestown, etc.

It is important that all these States and cities use a similar translation. I am informed that some of them are waiting for my official translation, and I have therefore to respectfully request that the report be printed as soon as practicable, in order that it may be ready for use for the statistics of 1901.

I have also to respectfully recommend that our Service adopt the nomenclatures in place of the antiquated one now in use.

Very respectfully,

M. J. ROSENAU,
Passed Assistant Surgeon, M. H. S.

SURGEON-GENERAL, Marine-Hospital Service.

[Letter of transmittal.]

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II. NOMENCLATURE INTENDED FOR MORTALITY STATISTICS.

A. DETAILED NOMENCLATURE.

I. General diseases:

1. Typhoid fever (abdominal typhus).
2. Typhus fever.
3. Relapsing fever.
4. Intermittent fever and malarial cachexia.
4. Repeated. Malarial cachexia.
5. Smallpox.
6. Measles.
7. Scarlet fever.
8. Whooping cough.
9. Diphtheria and croup.
9. Repeated. Of which, diphtheria.
10. Influenza.
11. Miliary fever (sweating fever).
12. Asiatic cholera.
13. Cholera nostras.
14. Dysentery.
14. Repeated. Of which, epidemic dysentery.
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ORGANIC DISEASES OF THE HEART.

Dr. Cressy L. Wilbur (Michigan) finds that this title lacks precision, and thinks that many deaths are classed under it which are really bad diagnoses.

He also states that there is no expression in French to translate the term "heart failure," which is the special opprobrium of American mortality statistics.

He proposes to class "heart failure" among "ill-defined diseases."

Discussion.—M. Netter (France) remarked that the objectionable expression is found in other forms in other countries. In Germany the expressions "herzlähmung" (paralysis of the heart) "herzschlag" (apoplexy of the heart) have no more signification.

Others expressed the same opinion and the names are therefore taken out of this heading.

OTHER AFFECTIONS OF THE CIRCULATORY SYSTEM.

Include under this heading "aortic aneurisms not determined," "splenic tumor," "splenopathy," etc.

M. Bernardel (France) finds it bad to count the diseases of the spleen under this heading. It would be necessary either to open a special heading, or better, to consider them under the heading "paludial cachexia," for they are almost always of malarial origin.

M. Rosenau (United States) finds that this solution would have its inconvenience, for epidemic diseases in America are not always of malarial origin, and prefers a special heading.

Adopted.

SENILE DEBILITY.

Dr. Cressy L. Wilbur finds the words "senile debility" equivalent to an abuse of diagnosis and proposes to class this heading under "ill-defined diseases."

In the discussion on this question an attempt was made to fix the age after which debility may be called "senile."

M. Bernardel (France) thought that this would be very difficult to do.

The commission was of the same opinion and the heading was maintained.

ANTHRAX.

[illegible] be due to staphylococcus [illegible] not to bacillus anthracis

B. ABRIDGED NOMENCLATURE.

	Numbers corresponding to the detailed nomenclature.
1. Typhoid fever (abdomanal typhus)	1
2. Typhus fever	2
3. Intermittent fever and malarial cachexia	4
4. Smallpox	5
5. Measles	6
6. Scarlet fever	7
7. Whooping cough	8
8. Diphtheria and croup	9
9. Influenza	10
10. Asiatic cholera	12
11. Cholera nostras	18
12. Other epidemic diseases	3, 11, 14, 15, 16, 18, 19
13. Tuberculosis of the lungs	27
14. Tuberculosis of the meninges	28
15. Other tuberculoses	from 26 to 34
16. Cancer and other malignant tumors	from 39 to 45
17. Simple meningitis	61
18. Congestion, hemorrhage, and softening of the brain	64 and 65
19. Organic diseases of the heart	79
20. Acute bronchitis	90
21. Chronic bronchitis	91
22. Pneumonia	93
23. Diseases of the stomach (except cancer)	103 and 104
24. Diarrhea and enteritis (under 2 years)	105
25. Hernia, intestinal obstruction	106
26. Cirrhosis of the liver	112
27. Nephritis and Bright's disease	119, 120
28. Tumors (not cancers) and other diseases of the female genital organs	from 127 to 132
29. Puerperal septicemia (puerperal fever, peritonitis, phlebitis)	137
30. Other accidents of the puerperium, of pregnancy, and of labor	134, 135, 136, 138, 139, 140, 141
31. Congenital debility and malformations	150, 151
32. Senile debility	154
33. Violent deaths	from 155 to 176
33 Violent deaths. Of which suicides	from 155 to 163
34. Other diseases	17, 20, 21, 22, 23, 24, 25, 35, 36, 37, 38, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85, 86, 87, 88, 89, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 106, 107, 109, 110, 111, 113, 114, 115, 116, 117, 118, 121, 122, 123, 124, 125, 126, 133, 142, 143, 144, 145, 146, 147, 148, 149, 152, 153
35. Diseases not known or ill defined	from 177 to 180

III. NOMENCLATURE OF THE CAUSES OF INTRA-UTERINE DEATH.

I. Diseases of the mother:
   - Syphilis.
   - Other general diseases.
   - Predisposition to abort.
   - Albuminuria and other diseases peculiar to pregnancy.
   - Traumatism and excessive work.

II. Diseases of the placenta and its envelopes (chorion, etc.).

III. Diseaseas of the fetus:
   - Malformations (hydrocephalus, etc.).
   - Premature births, etc.

IV. Accidents of labor:
   - Malformations of the mother, etc.
   - Bad presentation of the infant, etc.
   - Displacement and compression of the cord, etc.
   - Asphyxia.

V. Divers and not classified.

VI. Causes not specified or unknown.

EXPLANATION OF THE TITLES OF THE NOMENCLATURE OF DISEASES

showing the synonyms and diseases included under each title with references to the diseases which occur as complications of the principal diseases.

GENERAL DISEASES

I. GERMIC DISEASES

1. Typhoid fever.—This title includes: Dothienenteritis, mucosus, continued, ataxic or adynamic fever, abdominal typhus.
This title does not include: Adynamia (179), ataxic adynamia (179).
Frequent complications: Pneumonia, pulmonary congestion, intestinal perforation, peritonitis, intestinal hemorrhage, sloughing, albuminuria.
2. Typhus.—This title includes: Petechial fever, petechial typhus.
This title does not include: Abdominal typhus (1).
REMARKS: The word typhus without qualification will be taken in the sense at it is ordinarily understood in each country. For example in the sense of abdominal typhus in the German language and in the sense of exanthematic typhus in the French language, also in English.
Relapsing fever.—This title includes: Recurrent typhus.
Intermittent fever and intermittent fever.—This title includes: Paludal fever, miasmic fever, [illegible] pernicious remittent fever, malaria, paludal cachexia, [illegible] paludal anemia.
Also [illegible] of which: malarial cachexia.
Smallpox.—This title includes: Variola, varioloid.
This title does not include: Varicella (19).
Frequent complications: Meningitis, endocarditis, suppuration, albuminuria.
Measles.—This title includes: Morbilly, or rubeolar eruption.
This title does not include: Rubella (19).
Frequent complications: Bronchitis, bronchopneumonia, etc.
Scarlet fever.—This title includes: Puerperal scarlatina, scarlatinal angina.
Frequent complications: Albuminuria, convulsions, edema of the glottis, hemorrhage, endocarditis, pericarditis, paralysis, diphtheria, [illegible].
Whooping cough.—Frequent complications: Bronchitis, convulsions.
Diphtheria and croup.—This title includes: Diphtheritis, pseudomembranous infection, malignant or toxic angina, diphtheria in all forms, and especially diphtheria of the mucosa of the skin, of the conjunctiva, mouth, etc., pseudomembranous [illegible] of the pseudomembranous laryngitis, malignant laryngitis, diphtheritic paralysis.
This title does not include: Stridulous croup (8), membranous croup (8), false croup (8).
Frequent complications: Pneumonia, albuminuria, paralysis.
Also [illegible] of which: diphtheria.
Influenza.—This title includes: Grippal pneumonia or pneumonia due to influenza, bronchitis or bronchopneumonia due to influenza.
Malaria fever.—This title includes: Sunstroke.
Cholera nostras.—This title includes: Indian cholera, cholera without qualification, epidemic cholera.
Asiatic cholera.—This title includes: Spasmodic cholera, cholerine, choleriform diarrhea, enteritis, etc.
This title does not include: Cholera infantum (9), antimonial cholera (17), [illegible] cholera (9).
REMARKS: The words cholera nostras will be taken in the sense that it is ordinarily understood in each country, for example in the sense of cholera nostras in the United States of America and in the sense of Asiatic cholera in France and [illegible] countries.
Dysentery.—This title includes: Cholera and dysentery, dysentery of China, [illegible] tropical countries.
Also [illegible] of which: epidemic dysentery.
Plague.—This title includes: Pestis.
Yellow fever.—This title includes: Black vomit, vomito negro, fever [illegible].
Leprosy.—This title includes: Elephantiasis of the Greeks.
This title does not include: Elephantiasis arabum (1), elephantiasis of the [illegible] (14), Morvan's disease (6), syringomyelitis (6).
Erysipelas.—This title includes: All erysipelas whether medical or surgical, and whatever its situation.

This title does not include: Gangrenous or phlegmonous erysipelas (144), erysipelatous phlegmon (144).

Other epidemic diseases.—This title includes: Mumps, rubeola, German measles, scarlatina, chicken pox (beriberi), and every other epidemic disease not specified in the nomenclature.

This title does not include: Epidemic dysentery (14bis), epidemic cerebrospinal meningitis.

REMARK.—Should one of these epidemic diseases break out, it will then be necessary to create here a provisional special title for it.

Pyæmia and septicæmia.—This title includes: Purulent infections, absorption of purulent matter, putrid infection, absorption of putrid matter, putrid fever, infection of wound, streptococcus infection of the blood (streptococchemia).

This title does not include: Puerperal septicemia (137), infectious fever (55).

REMARK.—Whenever the death of an adult female is reported as having occurred from septicemia, the certificate should be returned to the physician for statement whether the septicemia was or was not puerperal.

Glanders and farcy.

Anthrax.—This title includes: Malignant pustule, charbon.

Rabies.—This title includes: Hydrophobia.

This title does not include: Sitiophobia (68).

Actinomycosis, trichinosis, etc.—This title includes: Dystoma hepaticum, cysticercus.

This title does not include: Cysts or hydatic tumors of the liver (111), or of the lungs (99), intestinal parasites (107).

Pellagra.

Tuberculosis of the larynx.—This title includes: Tubercular laryngitis, laryngeal phthisis.

Tuberculosis of the lungs.—This title includes: Pulmonary tuberculosis, pulmonary phthisis (without qualification), phymatosis, tubercle of the lungs, acute, galloping, miliary tuberculosis or phthisis; granulations of the lungs (granulie); pulmonary cavities; consumption; caseous pneumonia; tubercular, bacillary, specific, granular, neoplastic or heteroplastic bronchitis or pneumonia; tubercular pleurisy; tubercular hemoptisis, tuberculosis (without qualification).

This title does not include: Hemoptisis (without qualification) (99), pulmonary hemorrhage (99), bronchorragia (without qualification) (99), pneumonie du sommet (apical pneumonia) (93), laryngeal phthisis (26), pulmonary anthracosis (99).

Frequent complications: Hemorrhage, pneumonia, pleurisy, persistent diarrhea.

REMARK.—See observation made under No. 93, relative to "pneumonie du sommet" (apical pneumonia).

Tuberculosis of the meninges.—This title includes: Tubercular meningitis, meningeal tuberculosis, granular, miliary, caseous, bacillary, specific, neoplastic, heteroplastic meningitis.

This title does not include: Meningitis (without qualification) even for infants (61).

Abdominal tuberculosis.—This title includes: Tubercular, granular, bacillary, specific, peritonitis; peritoneal tuberculosis; tubercular enteritis.

Pott's disease.—This title includes: Caries of the vertebra (mal vertébral), spine disease, polyarthritis vertebral.

Frequent complications: Cold abscess, paraplegia.

Cold abscess.—This title includes: Ossifluent abscess.

White swelling.—This title includes: Articular fungosity, coxalgia, scrofulalgia.

Tuberculosis of other organs.—This title includes: Tuberculosis of the skin, lupus, tubercular nephritis, bacillary abscess, tubercular ulcer, tuberculosis of the bones.

This title does not include: Pott's disease (30).

General tuberculosis.—This title includes: Tuberculosis indicated simultaneously in two or more organs.

Scrofula.—This title includes: Lymphatism, scrofulide.

This title does not include: Scrofulous or lymphatic blepharitis, conjunctivitis, or keratitis (75).

Syphilis.—(*a*) Primary, (*b*) secondary, (*c*) tertiary, (*d*) hereditary. These divisions are only intended for the morbidity statistics.

This title includes: (*a*) Indurated or hard chancre, chancre of the mouth or of the face; (*b*) secondary—mucous plaques, amygdalitis, or angina or laryngditis syphilitic; (*c*) tertiary—specific symptoms, gumma, ulcerations, exostosis, etc., syphilitic, osteocopic pains. Every disease with the qualification "syphilitic."

This title does not include soft chancre, simple or phagedenic chancre (86bis).

This title does not include: Organic diseases of rheumatic origin (79, etc.), rheumatic iritis (75), rheumatic nodes (48), blennorrhagic rheumatism (37).

48. Chronic rheumatism and gout.—This title includes: Rheumatic nodes.

49. Scurvy.—This title includes: Werlhoff's disease.

50. Diabetes.—This title includes: Glycosuria.

Frequent complications: Pneumonia, furuncles, gangrene, hemorrhage or softening of the brain, tuberculosis.

51. Exophthalmic goiter.—This title includes: Exophthalmos, Basedow's disease, Grave's disease, exophthalmic cachexia.

Frequent complications: Hypertrophy of the heart, cachexia.

52. Addison's disease.—Frequent complications: Cachexia, ascites.

53. Leukemia.—This title includes: Adeno, leukemia, leucocythemia, Hodgkin's disease, pseudoleukemia.

Frequent complications: Hemorrhage, ascites, apoplexy, cachexia.

54. Anemia chlorosis.—This title includes: Pernicious anemia.

This title does not include: Cerebral anemia (74c).

55. Other general diseases.—This title includes: Autointoxication, infectious fever, virulent diseases (without other explanation), visceral steatosis, acromegalie, general amyloid or fatty degeneration.

56. Acute or chronic alcoholism.—This title includes: Drunkenness, ethylism, alcoholic intoxication, alcoholic delirium, alcoholic insanity, delirium tremens, absinthism, dipsomania.

This title does not include: Alcoholic cirrhosis (112), general alcoholic paralysis (67), atheroma (81), nor any other organic affections attributed to alcoholism, amblyopia by intoxication (75).

57. Chronic lead poisoning.—This title includes: Lead colic, saturnine colic, painters' colic, saturnine encephalopathy, saturnine paralysis, saturnism, all diseases qualified "saturnine."

58. Other chronic poisonings of occupations.—This title includes: The mercurial (hydrargyrismus) intoxications, phosphorous, arsenical, or other chronic intoxications when special mention is made by the physician, or in default of this information when the profession of the diseased indicates very clearly that the intoxication is professional. In default of one of these two indications, compile the bulletin under heading No. 59.

Phosphorous necrosis is always professional.

59. Other chronic poisonings.—(See observation made under the preceding paragraph 58). This title includes: Morphinism, cocainism, chronic ergotism.

This title does not include: Amblyopia by intoxication (75).

II.—DISEASES OF THE NERVOUS SYSTEM AND THE ORGANS OF SENSE.

60. Encephalitis.—This title includes: Brain fever.

61. Simple meningitis.—This title includes: Meningitis (without qualification), meningo-encephalitis, pachymeningitis, epidemic cerebrospinal meningitis.

61 bis.—Of which, epidemic cerebrospinal meningitis.

This title does not include: Tubercular meningitis, and all its synonyms (28), rheumatic meningitis (47).

62. Progressive locomotor ataxia.—This title includes: Duchenne's disease.

63. Other diseases of the spinal cord.—This title includes: Diseases of the cord, multiple sclerosis, symmetrical sclerosis, lateral sclerosis, sclerosis (without qualification), Charcot's disease, Morvan's disease, syringomyelia, tabes dorsalis spasmodica, hemorrhage of the spinal cord, hematomyelia, hematorrachis, myelitis, congestion of the medulla, affections of the bulb, bulbar paralysis, spinal paralysis, paralysis agitans, shaking palsy, ascending paralysis, infantile paralysis, fatty or amyloid degeneration of the cord, Parkinson's disease, Friedreich's disease, compression of the medulla or of the cord, progressive muscular atrophy, fatty degeneration of the muscles, atrophic muscular paralysis, amyotrophia, amyotrophic paralysis, atrophic paralysis, pseudo-hypertrophic paralysis.

64. Cerebral congestion and hemorrhage.—This title includes: Apoplexy, cerebral apoplexy, meningeal apoplexy, serous apoplexy, cerebral atheroma, edema of the brain, cerebral extravasation, hemorrhage of the cerebellum, meningeal hemorrhage, apoplectic insanity.

Frequent complications: Hemiplegia, paralysis.

65. Cerebral softening.—This title does not include: Senile dementia (154).

Frequent complications: Hemiplegia, paralysis, pulmonay congestion.

66. Paralysis cause unspecified.—This title includes: Paralysis (without qualification), hemiplegia, facial paralysis, general paralysis (do not confuse with paretic dementia).

aure læso, Menière's disease or vertigo, caries of the petrous portion of the temporal bone, deafness, deaf-mutism.

This title does not include: Mumps (19).

III.—DISEASES OF THE CIRCULATORY SYSTEM.

77. *Pericarditis.*—This title includes: Cardiopericarditis, hydropericardium, hydropneumopericardium, cardiac adhesions.

This title does not include: Rheumatic pericarditis (47), endopericarditis (78), pleuropericarditis (94), pneumopericarditis (93).

78. *Acute endocarditis.*—This title includes: Endocarditis (without qualification), acute myocarditis, or without qualification, endopericarditis.

This title does not include: Rheumatic endocarditis or other acute cardiac affections occurring during an attack of rheumatism (47).

79. *Organic diseases of the heart.*—This title includes: Aortic, mitral, tricuspid, cardiac or valvular affections or lesions, insufficiency or stenosis, cardiac cachexia, hypertrophy of the heart, dilatation of the heart, cardiectasis, steatosis of the heart, degeneration of the heart, cardiopathy, cardiac sclerosis, cardiovascular sclerosis, cardiomalacia, cardiostenosis, persistent foramen ovale, tachycardia, rupture of the heart, cardiorrhexis, palpitations of the heart, asystole, cardiac asthma.

This title does not include: Cardiac affections of undetermined character (86), persistence of the foramen ovale (150).

Frequent complications: Dropsy, bronchitis and pneumonia, albuminuria, embolism, thrombosis.

80. *Angina pectoris.*—This title includes: Cardialgia, sternalgia, neuralgia of the heart.

81. *Diseases of the arteries, atheroma, aneurism, etc.*—This title includes: Arteritis, fatty degeneration of the arteries, arteriosclerosis, arterial atheroma, arteriectasis, aortic ectasis, Hodgson's disease, stenosis of the pulmonary artery, aortitis, aneurismal tumor.

This title does not include: Aortic valve diseases (79).

82. *Embolism and thrombosis.*—This title includes: Thrombosis (not puerperal), phlegmasia alba dolens (nonpuerperal),

This title does not include: Puerperal emboli (140).

83. *Affections of the veins (varices, hemorrhoids, phlebitis, etc).*—This title includes: pneumophlebitis, varicose ulcer, varicocele.

This title does not include: Puerperal phlebitis (137), vascular or erectile tumor (46), angioma (46).

84. *Diseases of the lymphatic system (lymphangitis, etc.).*—This title includes: Angioleucitis, adenopathia, lymphangitis.

This title does not include: Suppurating adenitis (144), plegmonous adenitis (144), leukemic adenoma (53), lymphatismus (35), bubo (36 bis), adenoma (46), lymphoma (46), lymphadenoma (46).

85. *Hemorrhage.*—This title includes: Hemorrhage (without qualification), internal hemorrhage, hemophilia, epistaxis, stomatorrhagia, cutaneous hemorrhage, purpura hemorrhagica.

This title does not include: Cerebral hemorrhage (64), cerebellar hemorrhage (64), meningeal hemorrhage (64), pulmonary hemorrhage (99), hemoptysis (99), hematemesis (104), intestinal hemorrhage (109), hematuria (121), uterine hemorrhage (135 or 128, according to whether it is puerperal or not), metrorrhagia (128 or 125), umbilical hemorrhage (152), traumatic hemorrhage (166).

86. *Other diseases of the circulatory system.*—This title includes: Cardiac affections (not determined), angiectasis, angiectopia, affections of the large vessels, permanent slow pulse.

This title does not include: Vascular nevus (150).

IV.—DISEASES OF THE RESPIRATORY SYSTEM.

87.—*Diseases of the nasal fossæ.*—This title includes: Coryza, "cold," polypus of the nasal fossæ or nasopharynx, ozena, abscess of the nasal fossæ, adenoid vegetations.

This title does not include: Epistaxis (85), syphilitic coryza.

88. *Diseases of the larynx.*—This title includes: Acute, chron[illegible] edematous, phlegmonous, stridulous, etc., laryngitis; aphonia [illegible] voice, false croup, spasmodic croup, stridulous croup, [illegible] of the glottis, polypus of the larynx, stenosis of [illegible]

[illegible] title does not include: Tubercular laryngi[illegible]

102. Diseases of the esophagus.—This title includes: Foreign bodies in the esophagus, lesion of the esophagus, stenosis of the esophagus (except cancer), spasm of the esophagus, esophagotomy.

This title does not include: Cancer of the esophagus (40), syphilitic stenosis of the esophagus (36).

103. Ulcer of the stomach.—This title includes: Ulcus rotundum or round ulcer of the stomach.

Frequent complications: Hematemesis, perforation of the stomach, peritonitis.

104. Other diseases of the stomach (except cancer).—This title includes: Dilatation of the stomach, paresis of the stomach, dyspepsia, apepsia, gastritis, gastrohepatitis, foreign bodies in the stomach, gastrotomy, nontraumatic perforation of the stomach, gastralgia, vertigo a stomaco læso, catarrh of the stomach, gastrorrhea, indigestion.

Also include under this heading the following diseases when their nature is not indicated: Gastrorragia, hematemesis, hemorrhage from the stomach.

NOTE.—See observation made under No. 40 relative to organic lesion of the stomach.

This title does not include: Gastroenteritis (105 or 106, depending on the age).

105. Diarrhea and enteritis (under 2 years of age).—This title includes: Gastroenteritis, or gastrocolitis of infants, infantile enteritis, cholera infantum, athrepsia.

NOTE.—Class under this title only infants under 2 years of age.

105 bis—of which: Chronic diarrhea.

This title includes: Athrepsia.

106. Diarrhea and enteritis (2 years and over).—This title includes: Gastroenteritis, or gastrocolitis of adults, enteritis of adults, diarrhea of adults, lientery, intestinal ulcerations, colitis, intestinal colic, colic of flatulency, inflammatory colic.

This title does not include: Tubercular enteritis (29).

107. Intestinal parasites.—This title includes: Helminthes, oxyures, tenia, tenia solium, ascaris lumbricoides, cœnurus, trematoda, trichocephalus, ankylostoma, worm colic.

108. Hernia, intestinal obstruction.—This title includes: Internal strangulation, intestinal invagination, stercoral tumors, ileus, intestinal occlusion, volvulus, hernial cholera, hernial gangrene.

Include under this heading the following operations when their nature is not indicated: Merocele, sarcoëpiplocele, sarcoëpiplomphalus, kelotomy, herniotomy, artificial anus, stercoral vomiting.

This title does not include: Laparotomy (without other indication) (46).

Frequent complications: Peritonitis.

109. Other diseases of the intestines.—This title includes: Paralysis or paresis of the intestines, enteroptosis, constipation, stercoral fever, intestinal calculi, intestinal perforation, foreign bodies in the intestine or rectum, rectitis.

Also include under this heading the following diseases and operations when their nature is not indicated: Enterotomy, artificial anus, enterorrhagia, intestinal hemorrhage, melena, prolapse of the rectum, stenosis of the rectum.

This title does not include: Stercoral tumor (108), intestinal invagination and its synonyms (108), typhlitis (118), perityphlitis (118).

109 bis. Diseases of the anus and fecal fistula.—This title includes: Proctitis, periproctitis, proctocele, proctoptosis, fissure of the anus, abscess of the margin of the anus, fistula in ano or stercoral or recto-vaginal.

This title does not include: Urinary fistulas, even when they connect with the rectum (124), artificial anus (108) (for morbidity statistics only), imperforate anus (150) (for morbidity statistics only).

110. Pernicious icterus.—This title includes: Icterus gravus, acute yellow atrophy of the liver, parenchymatous hepatitis, Weil's disease.

This title does not include: Icterus or jaundice (without qualification) (114), chronic icterus (114), icterus of the new-born, *Icterus neonatorum* (151).

111. Hydatid tumors of the liver.—This title includes the following diseases when their location is not indicated: Hydatid cyst, hydatids, echinococcus.

112. Cirrhosis of the liver.—This title includes: Cirrhosis (without qualification), alcoholic cirrhosis, interstitial cirrhosis, biliary cirrhosis, amyloid or fatty degeneration of the liver, slow atrophy of the liver, steatosis of the liver, alcoholic, interstitial or alcoholic hepatitis.

This title does not include: Organic lesion of the liver (114), hypertrophy of the liver (114).

Frequent complications: Dropsy, hemorrhage, pneumonia, tuberculosis.

113. Biliary calculi.—This title includes: Hepatic calculi, biliary lithiasis, hepatic colic.

This title does not include: Cancer of the testicle (45), tubercle of the testi (33), varicocele (85), sarcohydrocele (45), syphilitic sarcocele (36), spermatorrh varicocele (83).

127. Metritis.—This title includes: Ulcer of the uterus, ulcerations of the ne

128. Uterine hemorrhage (not puerperal).—This title includes: Metorrhag menorrhagia, tamponnement of the vagina or of the uterus.

129. Uterine tumor (not cancer).—This title includes: Uterine fibroma, fibr tumor or fibroid bodies of the uterus, hysteromyoma, uterine polypus, fungus fungosities of the uterus.

130. Other diseases of the uterus.—This title includes: Ulcerations of the ne uterine or vaginal catarrh; deviation or antiflexion, retroflexion or antiversion, retroversion, or falling down or prolapse of the uterus; prolapse of the vagi elongation of the uterus; amenorrhea; hypertrophy of the neck of the uterus; d menorrhea; organic lesion of the uterus; hysterectomy; hysterotomy; metroto ablation of the uterus; pelvic abscess; periuterine abscess or phlegmon or rec uterine; pelvic suppuration; Huguier's disease; leucorrhea; "whites;" vagi discharge.

This title does not include: Puerperal diseases, abscess of the iliac fossa (95)

131. Ovarian cysts and other tumors of the ovary.—This title includes: Ov otomy, castration (in the female).

132. Other diseases of the female genital organs.—This title includes: Vaginism tumor of the vagina, ovaritis, salpingitis, salpinx, metrosalpingitis, hemato pinx, pyosalpinx, abscess and cysts of the vulvo-vaginal glands, vulvitis, periut ine hematocele or retro-uterine.

This title does not include: The urinary fistulas (124) and the fecal fistulas (bis), even though they be connected with the genital organs.

133. Diseases of the breast, not puerperal (cancer excepted).—This title includ Mammitis, abscess of the breast (not puerperal), cyst of the breast, cystic dise of Reclus, tumor of the breast (not cancer or without indication), amputat of the breast.

This title does not include: Mammary fistula (puerperal or without indicati (141), cancerous tumor of the breast (43).

VII.—PUERPERAL CONDITION.

NOTE.—It sometimes happens that the physician neglects to note the charac of the puerperal disease. In this case employes whose duty it is to compile statistics will be guided by the following: "In every case in which an adult fem is reported as having died of a disease which might be of a puerperal charact the certificate of death should be returned to the signer for explanation as whether the disease was puerperal or not. These diseases are the followi Peritonitis, pelviperitonitis, metroperitonitis, septicemia, hemorrhage, metr rhagia, eclampsia, phlegmasia alba dolens, phlebitis, lymphangitis, embolus, s den death, abscess of the breast."

134. Accidents of pregnancy.—This title includes: Abortion or miscarri (death of the mother), hemorrhage during pregnancy, uncontrollable vomiti rupture of tubal pregnancy, ablation of the gravid tube, troubles and fatig intervening in the course of pregnancy.

134 bis. Normal labor.—(For morbidity statistics only.)

135. Puerperal hemorrhage.—This title includes: Puerperal metrorrhagia.

136. Other accidents of labor.—This title includes: Dystocia, Cesserian ope tion, rupture of the uterus, metrorrhexia, tearing or rupture of the perineum, p neorrhaphy, placenta prævia, malposition or retention or detachment or apopl of the placenta, cephalotripsy, embryotomy (adult female), symphiseotomy, v sion, application of the forceps, uterine inversion.

137. Puerperal septicemia.—This title includes: Puerperal fever; puerpe infection; puerperal endometritis; puerperal salpingitis; perimetro-salpingitis, phlegmon (abscess) of the broad ligament or diffuse puerperal pelvic cellulit peritonitis, or metroperitonitis, or phlebitis, or lymphangitis, or puerpe pyohemia.

This title does not include: Septicemia (without qualification) (20).

138. Puerperal albuminuria and eclampsia.—This title includes: Puerpe uremia, nephritis of pregnancy, eclampsia gravidarium, epileptiform convulsi of women in pregnancy, puerperal tetanus.

139. Puerperal phlegmasia alba dolens.—Frequent complications: Gangre emboli.

This title does not include: Nonpuerperal phlegmasia alba dolens (82).

140. Other accidents of the puerperium—sudden death.—This title includ

Puerperal embolism, puerperal [illegible], puerperal sudden death, results of labor [illegible] explanation.

[illegible] Sudden death [illegible] puerperal scarlatina.

[illegible] This title includes Fissure of the nipple [illegible] puerperal; abscess of the breast; fistula of the breast; puerperal or without lactation.

[illegible]

[illegible] This title includes Mortification, sphacelus, dry or senile gangrene [illegible] gangrene of the mouth, gangrene of the vulva, etc.

[illegible] Gangrene [illegible] gangrene [illegible] gangrene (44).

[illegible] This title [illegible] Biskra, aleppo [illegible]

Note.— The word "anthrax" will be taken in the sense that it is ordinarily [illegible], for example, in French in the sense of "an aggregation [illegible]" and in Russia and other countries in the sense of "malignant pustule" (22).

[illegible] This title includes Abscess without qualification [illegible] suppurating [illegible] without qualification [illegible] suppurating [illegible] phlegmon [illegible] gangrenous [illegible] paronychia [illegible]

[illegible] Abscess [illegible] abscess of the [illegible] of the liver (114), of the [illegible] urinary (124), [illegible] puerperal (141) cold [illegible]

[illegible] This title includes Fistula without [illegible]

[illegible] This title includes Erythema [illegible] dermatitis, eczema [illegible] herpes [illegible]

[illegible] elephantiasis of the [illegible]

[illegible]

[illegible] This title includes Periostitis [illegible] necrosis, sequestrum [illegible] of the maxillary bones [illegible] maxillary sinus [illegible]

[illegible] of the temporal bone [illegible]

[illegible] This title [illegible] arthralgia [illegible]

[illegible] Rheumatic arthritis [illegible]

[illegible] amputation [illegible] amputation of the [illegible]

[illegible] This title includes Hygroma [illegible] rupture [illegible]

nontraumatic, diseases of the tendons, tenophytes, tenosynovitis, tenotomy tenorrhaphy, torticolis, lumbago, curvature.

X.—MALFORMATIONS.

150. Congenital malformations (stillbirths not included).—This title includes Malformation, monstrosity, anomaly, arrested development, congenital hydrocephalus, hydrocephalus (without qualification), megalocephalus, hydrorachis spina bifida, encephalocele, podencephalous, congenital eventration, omphalocele exomphalous, ectopia, imperforate anus, etc., hare lip, anaspadias, hypospadias cryptochidism, vascular nevus, polydactylism, syndactylism, congenital clubfoot talipes varus, valgus, or equinus, congenital deafness, or blindness, persistence of the foramen ovale.

This title does not include: Colomboma (75), flatfoot painful valgus (149) acquired hydrocephalus (74c).

XI.—DISEASES OF INFANCY.

150 bis. Births (children born in hospital and leaving the hospital without having been sick)—(For morbidity statistics only).

151. Congenital debility—icterus and sclerema.—This title includes: Premature births, atrophy (infantile), icterus or hepatitis of the newly born, atelectasis of the lungs of the newly born, edema of the newly born.

NOTE.—Under this title only compile children under three months old.

152. Other diseases peculiar to infancy.—This title includes umbilical hemorrhage, inflammation of the umbilicus, cyanosis of newly born.

NOTE.—Under this title only compile children under three months old.

153. Neglect.

XII.—DISEASES OF OLD AGE.

154. Senile debility.—This title includes: Senility, old age, senile cachexia, senile exhaustion, senile dementia.

This title does not include: Senile grangrene (142).

XIII.—EXTERNAL VIOLENCE.

NOTE.—Among suicides should be classed only cases which are definitely stated as such, or which result from suicidal attempts.

Among the suicides compile only individuals over the age of majority. Minors should be regarded as victims of assassination.

155. Suicide by poison.—This title includes: Voluntary poisoning, willful taking of sulphuric acid or any other corrosive substance.

This title does not include: Morphinism (59), cocainism (59).

156. Suicide by asphyxia.—This title includes: Suicide by burning charcoal.

157. Suicide by hanging or strangling.—This title includes: Hanging.

158. Suicide by drowning.

159. Suicide by firearms.

160. Suicide by cutting instruments.

161. Suicide by precipitation from height.

162. Suicide by crushing.

163. Suicide by other means.

164. Fractures.—This title includes: Detachment of the epiphysis, fracture of the cranium.

165a. Sprains.—This title includes: Distension of the ligaments. (For morbidity statistics only.)

166b. Dislocations.—This title includes: Luxation and subluxation.

166. Other traumatic accidents.—This title includes: Stabs by cutting instruments, contusion, bite (neither venomous nor virulent), crushing, railroad accidents (except suicide), injury by cutting instruments (without evidence of suicide), accidental fall, concussion of the brain, perforation of the skull, traumatic hemorrhage, traumatic fever, traumatic eventration, perforation of the abdomen or chest, all acute affections qualified "traumatic," wounds by firearms

167. Burns by fire.—This title includes: Burns by boiling water, steam, petroleum.

This title does not include: Conflagration (174).

168. Burns by corrosive substances.—This title includes: Burns by vitriol.

169. Insolation.—This title includes: Sunstroke.

170. Freezing.—This title does not include: Cold (newly born) (153).

171. Electrical shock.—This title includes: Lightning.

[illegible] Submersion without suicidal [illegible]

[illegible] Fatigue. [illegible] statistics only. [illegible] Hunger: insufficient food, except of the [illegible]

[illegible] Neglect of newly born [illegible] insufficient food of the [illegible]

[illegible] Accidental [illegible] asphyxia by illuminating gas [illegible] absorption of carbon [illegible] of ammonia, inhalation of chloro[illegible]

[illegible] All acute poisonings except [illegible] bites of snakes, [illegible]

[illegible] Accident without other [illegible] foreign bodies in [illegible]

[illegible]

[illegible] the physician. [illegible] disease is badly [illegible] complete

[illegible] of the extremities [illegible]

[illegible] glottis [illegible]

[illegible] death. [illegible] sudden death [illegible] sudden [illegible]

[illegible] Exhaustion, [illegible] asthenia [illegible] fever, gastric [illegible] German [illegible] asphyxia without cause [illegible] diagnosis [illegible] exhaustion, cachexia or [illegible] continued fever [illegible] or hay [illegible] of the newly born

[illegible] COMMISSION.

[illegible] of the nomenclatures [illegible]

[illegible] attending physi[illegible]

[illegible] the word [illegible]

[illegible] retained

[illegible]

[illegible] of their [illegible]

[illegible]

[illegible] nomenclature [illegible]

CREATION OF AN INTERNATIONAL BUREAU OF STATISTICAL DEMOGRAPHY.

[Extract from the proceedings.]

M. Huizinga (Holland) proposes that the statistics kept in conformity with the nomenclatures prepared by the international commission shall be centralized in an international bureau of statistical demography, which will have charge of comparing nosological statistics, as to their uniformity; of receiving the criticisms which shall be made on the work of the commission, and thereby prepare a work for the decennial revision, which is to take place in 1900.

This proposition was unanimously adopted.

M. Huizinga (Holland) then moved that this bureau of international statistics demography be at Paris, and that M. Jacques Bertillon be charged with its direction.

This motion was unanimously adopted.

M. Jacques Bertillon (France) thanks the international commission for the new proof of confidence which is given him, and declares himself profoundly touched. He asks that the commission state with more precision the services expected of him, in order that he may the better fulfill his duties.

Mr. President explains that Dr. Bertillon shall have to receive the statistical documents made in conformity with the nomenclatures adopted by the commission; to determine whether involuntarily the compilers of these statistics have departed from the rules prescribed by the commission, and in such case to make it known to them.

He will give explanations to those seeking information. He will receive the remarks which competent authorities may formulate in the work of the commission.

The international commission approved the programme outlined by the president.

DEATHS ATTRIBUTED SIMULTANEOUSLY TO TWO CAUSES.

TABLES INDICATING HOW THEY SHOULD BE CLASSED.

It happens very often that a death is attributed by the physician to two causes at the same time. However, it is clear that the death is to be counted only once. To which of the two causes shall it be attributed?

Very often the answer to this question is given by the physician himself. If he writes, for example, "rheumatic pleurisy," or "pleurisy following rheumatism," there remains no doubt as to which is the cause of death. But cases where two diseases are indicated at the same time, without any ties connecting them, require our special attention.

Most frequently in such cases one of the two diseases is only a complication of the other. The customary proceeding is to report the death as due to the primary disease, i. e., to the one which has brought about the other. But as the registrar is not, as a rule, a physician, it is proper to guide him in determining the primary disease. This is one of the reasons for making the special table which follows.

There are other reasons. It may happen that two diseases given as causes of death have no connection whatever with each other. There is nothing, in fact, to prevent an individual suffering from cirrhosis of the liver from contracting typhoid fever, although these diseases have no connection with each other and do not depend upon each other. There is nothing to prevent him from breaking his leg and dying from the effects. There is nothing to prevent him from committing suicide for the physical and moral sufferings, the misery which results from his disease, the vice itself which caused it, favor this dismal resolution. To which of these causes of death so different from each other should the death be attributed in the statistics? Whatever solution of this question is adopted it is preferable that this solution be uniform.

It has been decided, then, to anticipate and to formulate in advance all the possible and imaginable cases in such a way that the international statistics may be as comparable as possible.

RULES.

The following are the rules which will hold in making a choice between two simultaneous diagnoses.

First: If one of the two diseases is an immediate and frequent complication of the other the death should be classed under the heading of the primary disease. Examples: Infantile diarrhea and convulsions compile as infantile diarrhea. Measles and bronchial pneumonia compile as measles. Scarlatina and diphtheria compile as scarlatina. Scarlatina and nephritis compile as scarlatina.

[illegible] If it is not absolutely certain that one of the diseases comes directly from the other as in the preceding cases, the question should be settled as to whether there is very great difference in the severity of the two diseases, and the death should be classed under the heading of the more dangerous disease. Example: Organic disease of the heart and coryza.

The one disease is not caused by the other, and although coryza can be occasionally the cause of death, it is nevertheless certain that the heart disease is the real cause.

Third: If one of the two causes of death is an infectious disease, it is preferable that the death be attributed to the infectious disease, for the statistics of the effects of these diseases are of particular importance to the sanitarian, and it is important that these statistics be as complete as possible. Example: Biliary calculus and typhoid fever.

The two diseases bear no relation to each other, they are almost equally fatal, and death should be compiled under the title of typhoid fever as being an infectious disease.

The three preceding rules suggest and explain the rulings for a great number of cases. Wherever they are not applicable the following rules will serve for guidance.

Fourth: If an illness of rapid development is ended at the same time as one of a more slow development, the death should be preferably compiled under the latter. Example: Insanity and hypertrophic arthritic rheumatism.

The two diseases bear no relation to each other, both are incurable with life, but one is of rapid development, whereas the other, particularly the rheumatism, is more slow in its progress; the death should be compiled under the latter heading.

Likewise, if a death occurs from a chronic disease and from external injury, it is preferable to compile the death under the latter. Example: Lesion of the heart and a fracture of the wrist.

The patient had been suffering for a long time with ataxia, while the drunkenness [illegible] the cause of death. The ataxia is from a social standpoint [illegible] the intemperate habits that [illegible] itself of the attack [illegible] has caused only a fracture, a sprain or bruise [illegible] death in [illegible]

Fifth: [illegible] preceding rules are applicable, the choice between [illegible] Example: Local [illegible]

The [illegible] of the death should be [illegible]

When [illegible] such as hemorrhage, encephalitis [illegible]

When [illegible] as far as possible the requirement of arbitrary decisions [illegible]

In [illegible] of these rules which is the most logical of all is about the [illegible] Two others have been formulated with [illegible] all with method and precision.

[illegible]

[illegible] the diseases whose number in the [illegible] Example: Typhoid fever [illegible] Look for the table [illegible]

[illegible] under corresponding [illegible] the other diseases [illegible]

If [illegible] the death under the heading of [illegible] Example: [illegible] under [illegible] compiled under [illegible]

If [illegible] the death will be [illegible] under [illegible] Example: [illegible] at the same time [illegible] Look for table [illegible] under 93 [illegible] table under 93 is printed [illegible] to the [illegible] under N 93, [illegible]

[illegible] 12, [illegible] 15, 16, [illegible] 21, 22, 23, [illegible] 26, 27, [illegible] 29, 30, 31, 32, 33, 34, [illegible] 39, 40, 41, 42, 43, 44, 45, [illegible] 49, 50, 51, 52, 53, 54, 55, 56, 57, [illegible] 62, [illegible] 66, 67, [illegible]

79, 80, 81, 82, 83, 84, 85, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 103, 105, 106, 107, 108, 110,
112, 113, 115, 116, 118, 119, 120, 122, 124, 125, 127, 128, 129, 131, 133, 134, 135, 136, 1
138, 139, 140, 141, 142, 143, 144, 146, 154, from 155 to 176.

2.—3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27,
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138, 139, 140, 141, 142, 143, 144, 146, 154, from 155 to 176.

3.—4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26,
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108, 110, 1 112, 113, 115, 116, 118, 119, 120, 122, 124, 125, 127, 128, 129, 131,
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from 155 to 176.

4.—5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27,
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155 to 176.

5.—6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27,
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137, 138, 139, 140, 141, 142, 143, 144, 146, 150, 151, 152, 153, 154, from 155 to 176.

6.—7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26,
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129, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 146, 150, 151, 1
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7.—8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28,
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139, 140, 141, 142, 143, 144, 146, 150, 151, 152, 153, 154, from 155 to 176.

8.—9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28,
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136, 137, 138, 139, 140, 141, 142, 143, 144, 146, 150, 151, 152, 153, 154, from 15
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9.—10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29,
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113, 115, 116, 118, 119, 120, 122, 124, 125, 127, 128, 129, 131, 133, 134, 135, 136, 137,
139, 140, 141, 142, 143, 144, 146, 150, 151, 152, 153, 154, from 155 to 176.

10.—11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29,
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112, 113, 115, 116, 118, 119, 120, 122, 124, 125, 127, 128, 129, 131, 133, 134, 135,
137, 138, 139, 140, 141, 142, 143, 144, 146, 150, 151, 152, 153, 154, from 155 to 176.

11.—12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30,
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135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 146, 150, 151, 152, 153, 154, from 15
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12. [illegible] 15, 16, [illegible]

13. [illegible] 15, 16, [illegible] 21, 22, 23, [illegible] 26, 27, 28, 29, 30, 31, 32, [illegible] 39, 40, 41, 42, 43, 44, 45, [illegible] 50, 51, 52, 53, 54, [illegible] 62, [illegible] 67, [illegible] 70, [illegible] 110, 111, 112, [illegible] 120, [illegible] 135, [illegible]

14. 15, 16, [illegible] 21, 22, 23, [illegible] 26, 27, 28, 29, 30, 31, 32, 33, 34, [illegible] 39, 40, 41, 42, [illegible] 44, 45, [illegible] 49, 50, [illegible] 51, 52, 53, [illegible] 61, 62, 63, 64, 65, [illegible] 70, 80, [illegible] 104, [illegible] 111, 112, [illegible] 120, [illegible] 137, 138, 139, [illegible] 155, 164, [illegible] 170.

15. [illegible]

16. [illegible] 21, [illegible] 26, [illegible] 28, 29, [illegible] 31, 32, 33, 34, [illegible] 39, 40, 41, 42, 43, 44, 45, [illegible] 50, 51, 52, 53, [illegible] 116, [illegible] 140.

17. [illegible] 21, 22, 23, 24, [illegible] 26, 27, 28, [illegible] 39, 40, 41, 42, 43, 44, [illegible] 49, 50, [illegible] 51, 52, 53, [illegible] 62, [illegible] 70, [illegible] 112, [illegible] 137, 138, 139, 140.

18. 20, 21, 22, 23, [illegible] 28, 29, 30, 31, 32, 33, 34, [illegible] 39, 40, 41, 42, 43, 44, 45, [illegible] 50, 51, 52, 53, [illegible] 55, [illegible] 57, [illegible] 62, [illegible] 70, 80, [illegible] 108, 110, 111, 112, 113, 114, 116, 118, [illegible] 124, 125, [illegible] 129, 131, 133, [illegible] 140, [illegible] 148, [illegible] 150, 151, [illegible]

19. [illegible]

20. 21, 22, 23, [illegible] 26, [illegible] 28, 29, 30, 31, 32, 33, 34, 35, 36, [illegible] 39, 40, 41, 42, 43, 44, 45, 46, [illegible] 49, 50, 51, 52, 53, [illegible] 55, [illegible] 57, [illegible] 62, [illegible] 111, 112, 115, [illegible] 118, 120, 122, 124, 125, [illegible] 129, 131, 134, [illegible] 135, 136, [illegible] 138, 139, 140, 141, 142, 143, 144, 146, [illegible] 155, 160.

21. 22, 23, 24, 25, [illegible]

22. [illegible] 39, 40, 41, 42, 43, 44, 45, [illegible] 50, 51, 52, 53, [illegible] 62, [illegible] 112, 137, 138, 139, [illegible] 155, [illegible] 164, [illegible] 169, [illegible] 170.

23. [illegible] 39, 40, 41, 42, 43, 44, 45, [illegible] 50, 51, 52, 53, [illegible] 61, 62, 63, 64, 65, 66, 67, 68, [illegible] 77, 78, 79, 80, 81, 82, 83, [illegible] 99, [illegible] 104, 105, 106, 108, 110, 111, 112, 113, 117, 118, [illegible] 120, 122, 124, 125, [illegible]

127, 128, **129, 131,** 133, 134, **135, 136, 137, 138, 139, 140, 141, 142,** 143, **144, 146, 150, 151, 152, 153, 154,** from **155** to **176.**

36.—37, 38, **39, 40, 41, 42, 43, 44,** 45, **46, 47,** 48, **49, 50, 51, 52, 53,** 54, **55,** 56, **57, 60, 61, 62, 64, 65, 66, 67, 68, 69,** 70, 71, **72, 73,** 75, **76, 77, 78, 79, 80, 81, 82, 83, 84,** 85, **90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 103, 105, 106, 107, 108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122, 124, 125,** 127, **128, 129, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141,** 142, **143, 144,** 146, 150, 151, 152, 153, 154, from **155** to **176.**

NOTE.—This does not include acquired syphilis (adults). Hereditary syphilis of infancy is a disease much more often fatal.

37, 38.—Diseases enumerated in the development are the only ones that should be compiled under these headings. In all other cases, where two diagnoses are indicated simultaneously the bulletin should not be compiled under these headings.

39–46.—By reason of the extreme seriousness of these diseases, all bulletins, without exception, which make mention of them should be compiled under their headings, 39–46 (except deaths by violence); however, inanition can only be a consequence of cancer of the stomach.

47.—48, **49, 50, 51, 52, 53,** 54, **55,** 56, **57,** 60, 61, **62, 64, 65, 66, 67,** 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, **79, 80, 81, 82, 83, 84,** 85, 90, 91, 92, **93,** 94, 95, **96,** 97, 99, **103, 105, 106,** 107, **108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122, 124, 125,** 127, **128, 129, 131, 133,** 134, **135, 136, 137, 138,** 139, **140, 141,** 142, 143, 144, 146, 154, from **155** to **176.**

48.—The diseases enumerated in the development are the only ones which should be compiled under this heading. In all other cases where chronic rheumatism or gout are given simultaneously with another disease, the bulletin should not be compiled under this heading.

49.—This rare disease should be recorded every time it appears.

50, 51, 52, 53.—By reason of the extreme seriousness of these diseases, all bulletins which make mention of them should be compiled under their headings (except violent deaths, from **155** to **163** and from **166** to **176**).

54.—Pernicious anæmia should always be classified under this heading, even if it is complicated with another disease.

On the contrary, anæmia (without qualification) and chlorosis, whenever they are mentioned in conjunction with another disease, are more often only a consequence. The bulletin should then be compiled under the heading of the other disease.

56.—This intoxication characterizes the disease less completely than the diseases more exactly specified, even when these diseases come from alcoholism. For example, the words "cirrhosis of the liver" characterize a disease better than the vague mention of "alcoholism" does. Therefore any other diagnosis should be preferred to this one.

57.—58, 59, 60, 61, **62,** 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 75, 76, **77, 78, 79, 80, 81, 82,** 83, 84, 85, 90, 91, 92, 93, 94, 95, **96,** 97, 98, 99, **103, 105,** 106, **107, 108,** 110, **111, 112,** 113, 115, **116, 118, 119, 120,** 122, 123, 124, 125, 127, **128, 129,** 131, 133, **134, 135, 136, 137, 138, 139. 140, 141,** 142, 143, 144, 146, 154, **from 155** to **176.**

58, 59.—It is impossible to give detailed rules for headings so general and which include such varieties of intoxication. The development of the headings must be consulted and the same rules applied as in the case of lead poisoning.

60.—This heading should be avoided. **61, 62, 64, 65, 66, 67, 68, 69,** 70, 71, **72,** 73, 75, 76, **77, 78, 79, 80, 81, 82, 83, 84,** 85, **90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 103, 105, 106, 107, 108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122, 124, 125,** 127, 128, 129, 131, 133, 134, 135, 136, **137, 138, 139, 140, 141,** 142, 143, 144, 146, 154, from **155** to **176.**

61.—By reason of the extreme seriousness of this disease all bulletins which make mention of it should be classed under heading 61 (except when meningitis is in the development of another disease cited as being a frequent complication of this disease).

62.—The above applies to this heading also (except suicides and other violent deaths).

63.—It is impossible to give detailed rules for a heading so general.

64.—65, 66, **67,** 68, 69, 70, 71, 72, 73, 75, 76, **77, 78, 79, 80,** 81, 82, **83, 84, 85,** 90, 91, 92, 93, 94, 95, **96,** 97, 98, 99, 103, 105, 106, 107, 108, 110, 111, **112, 113, 115,** 116, 118, 119, **120,** 122, 124, 125, 127, 128, 129, 131, 133, 134, 135, 136, **137, 138, 139,** 140, 141, 142, 143, 144, 146, 154, from **155** to **163,** 164, 165, from **166** to **176.**

65.—66, **67,** 68, 69, 70, 71, 72, 73, 75, 76, **77, 78, 79, 80,** 81, 82, 83, 84, **85, 86,** 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 103, 105, 106, 107, 108, 110, **111, 112,** 113, 115, 116, 118, 119, **120,** 122, 124, 125, 127, 128, 129, 131, 133, 142, **143, 144, 146, 154,** from **155** to **163,** 164, 165, from **166** to **176.**

66. 67, 68, 69, [illegible] 77, 78, 79, 80, 81, 82, 83, 84, [illegible] 96, [illegible] 103, 105, 106, [illegible] 108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122, 124, 125, [illegible] 129, 131, [illegible] 134, 135, 136, 137, 138, 139, 140, 141, [illegible] 144, 146, 150, 151, 152, [illegible] 154, [illegible] 155 [illegible] 163, [illegible] from 166 to 176

67. [illegible] 105, [illegible] 112, [illegible] 119, 120 [illegible] 125, [illegible] 129, 131, [illegible] 134, 135, 136, 137, 138, 139, 140, 141, [illegible] 144, 146 [illegible] from 155 to 176.

68. [illegible] 77, 78, 79, 80, 81, 82, 83, 84, [illegible] 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 103, 106, [illegible] 108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122, [illegible] 125, [illegible] 129, 131, [illegible] 134, 135, 136, 137, 138, 139, 140, 141, [illegible] 143, 144, 146, [illegible] from 155 [illegible] 176

69. [illegible] 77, 78, 79, 80, 81, 82, 83, 84, [illegible] 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 103, 105, 106, [illegible] 108, 110 111, 112, 113, 115, 116, 118 119 120, 122, [illegible] 125, [illegible] 129, 131, [illegible] 134, 135, 136, 137, 138, 139, 140, 141, [illegible] 143, 144, 146, [illegible] from 155 [illegible] 176.

70, 71. [illegible]

72. [illegible]

73. [illegible]

74. [illegible]

75, 76. [illegible]

77. 78, 79, [illegible] 96, [illegible] 112, [illegible] 119, 120, [illegible] 137, 138, 139, 140, [illegible] 163, [illegible] 166 [illegible] 176

78 79, 80, 81, 82, [illegible] 96, [illegible] 103, 105, [illegible] 112, [illegible] 119, 120, [illegible] 137, 138, 139 140, [illegible] 163, [illegible] 166 [illegible] 176

79 [illegible] 105, [illegible] 112 119, 118, [illegible] 125, [illegible] 137, 138, 139, 140, [illegible] 163, [illegible] 166 [illegible] 176

80 81, [illegible] 96, [illegible] 112, 116, 118, 119, [illegible] 155 [illegible] 163, [illegible] 166 [illegible] 176

81 [illegible]

82 83, [illegible] 96, [illegible] 103, [illegible] 112, 116, 118, [illegible] 120, [illegible] 137, 138, 139, 140, 141, [illegible]

83 [illegible] 96, [illegible] 110, [illegible] 112, 116 118 119, 120, 122, 124, 125, [illegible] 120, [illegible] 137, 138, 139, [illegible] 141, [illegible] 143 144, [illegible] 155 176

84 [illegible] 96, [illegible] 105 [illegible] 108, 110, 111, 112, 116, 118, 119, 120, 122, 124, 125, [illegible] 129, 131, 133, [illegible] 137 138, 139, [illegible] 141, [illegible] 143, 144, [illegible] 155 [illegible]

85 [illegible]

86, 87, 88, 89 [illegible]

90 99 [illegible]

100 102 [illegible]

101 [illegible] 108 112, [illegible] 118, 119 120 [illegible] 125 120, [illegible] 137, 138 139, [illegible] 155, [illegible] 156 [illegible] 163 [illegible] 166 [illegible] 176

103 [illegible]

105 106, [illegible] 108, 110, 112, [illegible] 119, 120, [illegible] 150, [illegible] 164 [illegible] 176

106.—107, **108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122,** **125,** 127, **128, 129, 131, 133,** 134, **135, 136, 137, 138, 139, 140, 141** 143, 144, 146, 154, from **155** to **176.**

107.—**108, 110, 111, 112, 113, 115, 116, 118, 119, 120, 122, 124,** 127, **128, 129, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141,** **143, 144, 146, 150, 151, 152, 153,** 154, from **155** to **176.**

108.—**110,** 111, **112,** 113, 115, 116, **118, 119, 120,** 122, 124, 125, **127,** 12 131, 133, 134, **135, 136, 137, 138, 139,** 140, 141, 142, 143, 144, **146,** 150, 15 153, 154, from **155** to **176.**

109.—It is impossible to give detailed rules for headings so general.

110.—**111, 112, 113,** 115, **116, 118, 119, 120,** 122, 124, 125, **127,** 12 131, 133, 134, 135, 136, **137, 138, 139, 140,** 141, 142, 143, 144, **146, 150,** **152,** 153, 154, from **155** to **176.**

111.—**112,** 113, 115, 116, 118, **119, 120,** 122, 124, 125, 127, 128, **129, 13** 134, **135, 136, 137, 138, 139, 140,** 141, 142, 143, 144, 146, **154, from 1** **176.**

112.—113, 115, 116, 118, 119, 120, 122, 124, 125, 127, 128, 129, **131, 133,** 13 136, 137, 138, 139, 140, 141, 142, 143, 144, 146, 154, from **155 to 163,** 16 from **166** to **176.**

113.—**115,** 116, **118, 119, 120,** 122, **124, 125,** 127, 128, **129, 131,** 13 **135, 136, 137, 138, 139, 140,** 141, 142, 143, 144, 146, **150, 151, 152,** 15 from **155** to **176.**

114.—It is impossible to give detailed rules for headings so general.

115.—116, 118, 119, **120,** 122, **124, 125,** 127, 128, **129, 131,** 133, **134,** 13 **137,** 138, 139, 140, 141, 142, 143, 144, 146, 154, from **155** to **163, 164,** 165, **166** to **176.**

116.—**118,** 119, **120,** 122, 124, 125, 127, 128, **129, 131,** 133, **134, 135,** **137, 138, 139, 140, 141,** 142, 143, 144, 146, 150, 151, 152, 153, 154, **from 1** **163,** 164, 165, from **166** to **176.**

117.—It is impossible to give detailed rules for headings so general.

118.—119, **120,** 122, 124, 125, 127, 128, 129, 131, 133, 134, **135, 136, 137,** **139, 140,** 141, 142, 143, 144, 146, 154, from **155** to **163,** 164, 165, **from 1** **176.**

119.—**120,** 122, 124, 125, 127, 128, 129, 131, 133, 134, 135, **136, 137, 138,** **140, 141,** 142, 143, 144, 146, 154, from **155** to **163,** 164, 165, from **166** to

120.—122, 124, 125, 127, 128, 129, 131, 133, 134, 135, **136, 137, 138, 139,** 141, 142, 143, 144, 146, 154, from **155** to **163,** 164, 165, from **166** to **176.**

121.—It is impossible to give detailed rules for headings so general.

122.—124, **125,** 127, 128, **129, 131,** 133, 134, **135, 136, 137, 138, 139,** **141,** 142, 143, 144, 146, 154, from **155** to **176.**

123.—It is impossible to give detailed rules for headings so general.

124.—**125,** 127, 128, **129,** 131, 133, 134, **135, 136, 137, 138, 139, 140,** 143, 144, 146, 154, from **155** to **176.**

125.—**142,** 143, 144, 146, 154, from **155** to **163,** 164, 165, from **166** to **1**

126.—It is impossible to give detailed rules for headings so general.

127.—**128, 129, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141,** **143, 144, 146, 154,** from **155** to **176.**

128.—**129, 131,** 133, **134, 135, 136, 137, 138, 139, 140, 141,** 142 144, 146, **154,** from **155** to **176.**

129.—131, 133, 134, **135, 136, 137, 138, 139, 140, 141,** 142, **143,** 14 154, from **155** to **163,** 164, 165, from **166** to **176.**

130.—It is impossible to give detailed rules for headings so general.

131.—133, 142, 143, 144, 146, 154, from **155** to **163,** 164, 165, from **166** to

132.—It is impossible to give detailed rules for headings so general.

133.—**134, 135, 136, 137, 138, 139, 140, 141,** 142, 143, **144, 146,** **151, 152,** 153, 154, from **155** to **176.**

134.—**142, 143, 144,** 146, from **155** to **163,** 164, from **165** to **176.**

135.—**136, 137, 138, 139,** 140, 141, 142, 143, 144, 146, from **155** to **163** 165, from **166** to **176.**

136.—**137,** 138, 139, 140, 141, 142, 143, 144, 146, from **155** to **163,** 164 from **166** to **176.**

138.—139, 140, 141, 142, 143, 144, 146, from **155** to **163,** 164, 165, **from 1** **176.**

139.—140, 141, 142, 143, 144, 146, from **155** to **163,** 164, 165, from **166** to

140.—141, 142, 143, 144, 146, from **155** to **163,** 164, 165, from **166** to **17**

141.—142, 143, 144, 146, from **155** to **163,** 164, 165, from **166** to **176.**

142.—**143, 144,** 146, **150, 151, 152, 153,** 154, from **155** to **163, 164,** from **166** to **176.**

143. 144, 146, 154, from 155 to 163, 164, 165, from 166 to 176.
144. 146, 150, 151, 152, 153, 154, from 155 to 176.
145. It is impossible to give detailed rules for headings so general
146. 154, from 155 to 163, 164, 165, from 166 to 176.
147, 148, 149. It is impossible to give detailed rules for headings so general.
150. 151, 152, 153, 164, 165, from 166 to 176.
151. 152, 153, 164, 165, from 166 to 176.
152. 153, 164, 165 from 166 to 176.
153. 164, 165, from 166 to 176.
154. From 155 to 163, 164, 165, from 166 to 176.
155 162. 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176
164 165. 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176.
166. 167, 168, 169, 170, 171, 172, 173, 174, 175, 176.
167. 168, 169, 170, 171, 172, 173, 174, 175, 176.
168. 169, 170, 171, 172, 173, 174, 175, 176.
169. 170, 171, 172, 173, 174, 175, 176
170. 171, 172, 173, 174, 175, 176

FINAL AGREEMENT ADOPTED BY THE INTERNATIONAL COMMISSION.

Extract from the proceedings

Professor Brouardel, of the institute, in the chair.

On August 21, 1900, the international commission charged to revise the nomenclature of the causes of death met in full session at 3 o'clock p. m. in the regular session chamber.

Present:

Austria.—Dr. Stephane Szellarack, municipal counselor, director of the statistical department of the city of Vienna, delegate from the city of Vienna.

Belgium.—Dr. Van Ermengem, professor at the University of Ghent, member of the superior council of public hygiene; Dr. Putzeys, professor at the University of Liege, member of the superior council of public hygiene.

Bulgaria.—Dr. Napoleon Rana, professor at the University of St. Xavier, Sofia.

Denmark.—Dr. Hoff, chief of the sanitary service of the city of Copenhagen, chevalier of the order of Danebrog.

Spain.—Gen. Charles Barraquer, director of the Geographical and Statistical Institute of Spain.

United States.—Dr. M. J. Rossman, passed assistant surgeon and director of the hygienic laboratory, United States Marine-Hospital Service.

France.—Dr. Jacques Bertillon, chief of the municipal statistical works for the city of Paris, member of the consulting committee of public hygiene of France, member of the superior council of statistics; Dr. P. Brouardel, member of the institute, dean of the Faculty of Medicine of Paris, president of the consulting committee of public hygiene of France; Dr. Netter, associate professor of the Faculty of Medicine of Paris, member of the consulting committee of public hygiene of France.

Honduras.—M. Ibarra Pector, consul-general of Honduras.

Hungary.—Dr. Cornelle Chyzer, state counselor, chief of the sanitary section to the minister of the interior of Hungary; Dr. Alaiar Kovacs, under secretary to the central statistical bureau of the Kingdom of Hungary.

Italy.—Dr. Rudolphe Livi, chief of the statistical bureau of the war office of the Kingdom of Italy; Dr. Louis Simonetta, associate professor of the University of Sienne.

Mexico.—Dr. Porfirio Parra, professor of the faculty of medicine of Mexico; Dr. Jose Ramirez, sanitary inspector, secretary to the superior sanitary council of Mexico.

Monaco.—Dr. Coligmon.

Norway.—Dr. Klaus Hansen, physician in chief of the hospital of Bergen.

Netherlands.—Mr. Menno Huizinga, inspector of hygienic services of Holland; Mr. Salter, professor of hygiene of the University of Amsterdam.

Portugal.—Dr. Ferreira de Mattos, jr., professor at the University of Coimbre; Dr. Joan de Melo Vianna, member of the Royal Academy of Sciences at Lisbon; Dr. Charles Leopold dos Santos.

Sweden.—Dr. Wawrinsky, counselor to the royal medical administration of Sweden.

Switzerland.—Dr. Guillaume, director of the Federal bureau of statistics at Berne.

Uruguay.—Dr. Henri Pouey, professor of the faculty of medicine of Montevideo.

The president presents the international commission the authentic text of the nomenclature of the causes of death arranged by the said commission. The nomenclature is attached to the present agreement, which the president invites the delegates to sign.

AGREEMENT.

The delegates agree to recommend to their respective governments the adoption of the nomenclatures of the causes of death attached to the present agreement, in order to insure uniformity and comparability in the statistics of the causes of death, beginning with the 1st of January, 1901.

They recognize that it is advisable that this nomenclature be revised every ten years, the first revision to take place in the course of the year 1910. In the absence of other arrangements, the Government of France is charged to convene for this purpose and at this date, a meeting of a new international commission.

Countries that have not taken part in the commission or that have not signed the present agreement may assent to it if they desire.

In witness whereof the respective delegates have signed it.

Done at Paris the 21st August, 1900.

The delegates from Austria, Belgium, Bolivia, Denmark, Spain, United States, France, Honduras, Italy, Mexico, Monaco, Norway, Holland, Portugal, Sweden, Switzerland, and Uruguay declare themselves ready to sign this agreement.

The president quotes from the remarks made by the delegate from the city of Dresden (Germany) at the opening session of August 18.

There are several nomenclatures in use in the statistical bureaus of the German cities. At Dresden, for example, the monthly statistics are published according to the system drawn up by Messrs. Flinzer and Lackner at the request of the union of statisticians of the German cities; the weekly statistics, according to that of Virchow; in addition, the city is obliged to make a third table, also monthly to satisfy the imperial sanitary office, and a fourth—annual—for the Medical Commission of the Kingdom of Saxony (Landes-Medicinal-Collegium).

The simultaneous use, however, of several systems causes no difficulty whatever. It suffices to submit to a new arrangement the bulletins concerning diseases whose classification varies for the different systems. It follows that statistical bureaus can, just as easily as these four different reports are made, furnish reports in accordance with the Bertillon system, the commendable quality of which the speaker recognizes, and this he thinks they can do without abandoning their present systems of classification, which are indispensable for comparison with the past.

The international commission accepted these remarks as part of the proceedings.

The president recalls that at the session of the morning of August 18 the delegate from Austria made the following remarks:

"The delegate from Austria states that a new nomenclature of diseases has just been drawn up in Austria, inspired by the nomenclatures proposed by M. Bertillon. This nomenclature, however, has been drawn up especially in reference to the statistics of hospitals, and is a little more lengthy than that of M. Bertillon. This nomenclature is still only in course of adoption; it will be revised in October or November next. An effort will be made to make it approximate as nearly as possible to the nomenclature which the international commission shall adopt, but it may perhaps be necessary to retain some differences, in order not to depart too far from ancient traditions."

The international commission accepted these remarks as part of the proceedings.

The delegates from Vienna state that, while signing, they make the following declaration:

"The undersigned delegates agree to recommend the adopted nomenclatures to the administration of the city of Vienna, and to do all in their power to have them adopted by the 1st of January, 1901, in order to insure the comparability of the mortality statistics from the beginning of the twentieth century.

"Dr. HAAS,
"*Municipal Counselor of the City of Vienna.*
"Dr. SEDLACZEK ETIENNE,
"*Municipal Counselor,*
"*Director of the Statistical Department of the City of Vienna.*"

The international commission accepted these remarks as part of the proceedings.

The delegate from Denmark states that in signing the agreement he makes the following declaration:

"I voted yesterday for a publication of the protocol of the commission, in conformity with your proposition.

Not being authorized by my Government I must make this reservation that signature should be regarded simply as a personal assent.

As M. Bertillon remarks in his report, the Royal Sanitary Council of Denmark has not for the moment dared to accept the propositions of M. Bertillon. The reason for this deviation was that such a reform would on certain points disturb our customary forms.

I can only present, then, the proposed to my Government and for my part commend to the board of health in our country partial and successive reforms propositions made and adopted by the international commission.

"E. M. Hoff."

The international commission accepted these remarks as part of the proceedings.

The delegate from Russia makes the following remarks:

Gentlemen: We the Russian physicians, always endeavor to compile as far possible the etiology in order that a practical and immediate application to sanitary measures can be drawn from the information furnished by the statistics. The etiological division of the causes of death presents, it is true, the inconvenience of change with the progress of science, but, on the other hand, the anatomical division can no longer be considered as fixed, thus, for example, it is proposed to class tetanus among the nervous diseases, while in Russia, as moreover the commission has also accepted it, it is ranged among general diseases. On the other hand, the relative stability of the system adopted by the commission can rival in advantages the etiological division as elaborated by the Russian commission.

The international commission accepted these remarks as part of the proceedings.

The delegate from Switzerland states that in signing the agreement he makes the following declaration:

"The delegate of the Federal Council of Switzerland, having no other instructions from his Government than those of taking part in the conference and of making a report, wishes, nevertheless, to declare that although the classification of causes in the nomenclature resulting from the deliberations is not that which is recognized in Switzerland, he agrees to recommend in his country everything which will tend to establish comparable mortality statistics. This will be the more easy for him in that the new Swiss nomenclature arranged from the etiological point of view will permit of response to the demands of the three Bertillon nomenclatures."

The international commission accepted these remarks as part of the proceedings.

In witness whereof the undersigned delegates to the international commission charged to revise the nomenclature of causes of death of Paris have signed the proceedings to which is attached an authentic copy of the agreement and the nomenclature of the causes of death.

Austria: City of Vienna: Sellmarck.
Belgium: Putzeys, Van Ermengem.
Bolivia: Napoleon Rana.
Denmark: E. M. Hoff.
Spain: Carlos Barraquer.
United States: M. J. Rosenau.
France: P. Brouardel, Jacques Bertillon, Netter.
Honduras: Desire Pector.
Hungary: Chyzer Kornel.
Italy: R. Livi, L. Simonetta.
Mexico: Porfirio Parra, Jose Ramirez.
Mexico: Colignon.
Norway: K. Hansen.
Holland: J. Menno Huizinga, R. Saltet.
Portugal: Daniel de Matos, Carlos dos Santos, J. de Melo Vianna.
Sweden: Rob. Wawrinsky.
Switzerland: Guillaume.
Uruguay: Enrique Pomes.

See Appendix the assent of the Republic of Ecuador and the Republic of Salvador to the present agreement.

Certified in conformity with the original.

P. Brouardel,
The President of the Commission.

Jacques Bertillon,
Secretary General.

Dr. Netter, *Secretary.*

APPENDIX I.

I, the undersigned, Rafael Rodriguez Zambrano, professor of the Central U versity of Ecuador, delegated by the President of Ecuador to the commissi charged to revise the nomenclatures of the causes of death, profiting by the l clause of the agreement signed at the close of the work of that commissi declare, in virtue of the powers vested in me by my Government, that I agree the terms of the said agreement.

RAFAEL RODRIGUEZ Z.

PARIS, *August 29, 1900.*

APPENDIX II.

LEGATION OF SALVADOR,
PARIS, *September 8, 1900.*

SIR: I have the honor to acknowledge the receipt of your letter dated August in which you were kind enough to inform me that the note informing you of r appointment to represent my Government at the international commissi charged with the revision of the nomenclature of the causes of death had arriv too late, the commission having concluded its work before its reception.

I regret very much this circumstance, which has deprived me from taking p in the sessions of the commission, but since its last clause gives me the right add Salvador to the States which have already assented to the agreement, I wi to avail myself of it. Consequently, and in accordance with the text of the agr ment, which you had the kindness to send to me, I agree to recommend to r Government the nomenclature adopted, and I think that it will take due note this recommendation and of the advantage which will result for statistics fr the uniformity in nomenclature.

Thanking you in advance, etc.,

RAFAEL ZALDIVAR

The SECRETARY-GENERAL.

REPORT ON THE PROCEEDINGS OF THE TENTH INTERNATIONAL CONGRESS HYGIENE, HELD AT VIENNA, AUSTRIA, OCTOBER 13, 1900.

By P. A. Surg. M. J. ROSENAU.

VIENNA, AUSTRIA, *October 13, 1900*

SIR: I have the honor to submit herewith a report upon the proceedings of t Tenth International Congress of Hygiene and Demography.

Respectfully, yours,

M. J. ROSENAU,
Passed Assistant Surgeon, M. H. S

SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

PLAGUE.

Calmutte read a paper on plague, in which he treated the subject mainly fr a therapeutical and prophylactic standpoint. He pointed out clearly the value the antipeste serum of Yersin, both in the treatment and prevention of the d ease. He also showed the value of the Haffkine prophylactic as a purely preve ive measure. This paper has been made the subject of a special report. In t discussion which followed it was again emphasized that large doses of the seru are necessary in order to effect a cure. Liguere stated that 60 c. c. of the seru should be given into a vein as soon after the appearance of the disease as possib and from 20 to 40 c. c. more should be injected twelve to twenty-four hours aft wards.

* * * * * * *

The discussion upon the best means of destroying rats on board vessels brou out nothing new.

* * * * * * *

The fact that the fleas of mice and rats may carry the disease was mentioned by Lignieres.

* * * * * * *

The danger of conveying infections in merchandise was discussed pro and con. The difficulties of disinfecting the cargo of a vessel carrying 10,000 tons was mentioned and its necessity questioned.

* * * * * * *

The section was unanimously of the opinion that all vessels from an infected port should carry a supply of antipestic serum.

* * * * * * *

Wurtz and Berge stated that they found the bacillus of plague alive after forty days in sea water.

* * * * * * *

A resolution was passed in favor of France taking the initiative toward calling another international sanitary congress in order to adopt international measures against the plague.

This resolution was unanimously passed for everybody present at the meeting seemed to feel the danger menacing the world from the reawakening of this dreadful scourge.

YELLOW FEVER.

An interesting report upon the cause of yellow fever, by Proust and Wurtz, has already been translated and sent to the Bureau (See Public Health Reports, Vol. XV, No. 36, September 7, 1900). The authors of this report summed up the literature on the bacillus icteroides and its relation to yellow fever. They concluded that the bacillus icteroides discovered by Sanarelli seems to be the specific agent of yellow fever.

In a general discussion which followed no dissenting opinions were expressed.

DIPHTHERIA.

Roux presented a paper upon "Measuring the activity of serums," in which he reviewed the two methods: 1 His own method, based upon the amount of serum used to the weight of the guinea pig and 2 the method of Behring and Ehrlich based upon the system of units. The latter system is now universally used, especially since the more exact studies of Ehrlich upon toxins, toxoids and toxines. These studies have brought to the pseudology of antitoxins a precision which is welcomed by the physician.

The discussion following the reading of this paper brought out an almost unanimous expression of opinion as to the value of diphtheria antitoxin both as a curative and preventive measure.

A resolution was unanimously passed by the section to the effect that the use of antitoxin as a preventive has no bad effects and may accomplish much good.

Another resolution was passed though not unanimously to the effect that a child should not be allowed to return to school after a case of diphtheria until the virulent bacilli disappear from the throat.

There was some objection to this resolution by Fraenkel on the ground that the Loeffler bacillus sometimes remains in the throat six months and that the time is not yet ripe to enforce a measure of such severity.

The only dissenting note as to the value of diphtheria antitoxin came from England where it is claimed the results have not been as favorable as reported elsewhere.

It was shown that the mortality from diphtheria has diminished in all countries where the antitoxin is used. This was considered by some as a result of the treatment, especially as the disease has not abated in England where the antitoxin treatment is not popular. It was argued on the other hand that the disease has grown milder in character in the past years through natural or unknown causes. The fact remains that it is now very difficult to obtain virulent diphtheria cultures and at the Pasteur Institute and other places where antitoxin is made it has been found necessary to use artificial means to increase the virulence of the diphtheria cultures in order to obtain a toxin of sufficient potency to produce antitoxin.

Italy reported especially interesting results from Roumania where it seems diphtheria has been epidemic in severe form. In the villages where antitoxin was used the death rate was small and the disease soon disappeared, while in

neighboring villages where the doctors were opposed to the use of antitoxin, the death rate was high and the disease assumed epidemic proportions.

Martin read a paper upon the treatment and prophylaxis of diphtheria and pointed out the brilliant results claimed for antitoxin in France.

During the years 1890 to 1894 there was an average of 1,432 deaths caused by diphtheria each year. The serum treatment began in 1894. For the five following years, 1895 to 1899, the annual average death rate from this disease has been 354. The difference between 1,432 and 354, or 1,078, represents the number of children which he claims are annually saved in Paris owing to the treatment.

Professor Rauchfüss, of St. Petersburg, made a special study of the importance of giving the injection early. He studied, with this point in view, the statistics of 39,000 cases, and found the mortality to be 7.4 per cent when the serum was injected on the first or second day; 16.2 per cent on the third day; 28 per cent when given still later.

Other figures were given to emphasize the importance of giving the serum early—as soon as possible.

Another benefit from the use of the serum therapy was found in the greatly diminished number of surgical operations, and their greater success when performed for diphtheritic complications. Martin concluded by stating that after five years of trial the serum remains the best treatment for diphtheria.

Two hundred and thirty-two thousand children have already been treated by it. Of these, 37,000 died, but more than 60,000 owe their lives to the immortal discovery of Behring and to the remarkable work of Roux.

THE BACTERIOLOGICAL EXAMINATION OF WATER.

Fraenkel stated that the bacteriological examination of water has two uses: (1) To find pathogenic organisms, especially typhoid and cholera; (2) to determine by comparative analyses whether a filter or other method for purifying water is effective.

The general sentiment of the section as expressed was that it is almost impossible to pass judgment upon the potability of a water by chemical and bacteriological examination. Many other conditions must be taken into account.

The bacteriological and chemical laboratory for the examination of water should not be bounded by four walls, but should include a study of the source, the watershed, and all the conditions that might influence the water. An examination of a water made to-day might find a potable liquid, whereas to-morrow it might be contaminated with cholera, typhoid, etc.

Calmette emphasized the point that water should be sterilized before use—that is the surest way to prevent the propagation of disease by this medium.

Sand filters have done much good, but they are not perfect, and may be, or often should be, supplemented by a process of sterilization. For this purpose he especially recommends ozone. It has been found by the commission, including Roux and Calmette, that ozone freshly prepared and added to water will quickly destroy all organism, excepting an occasional subtilis spore. The ozone also oxidizes the organic matter and finally disappears, leaving no trace. The method, therefore, has the advantage over other chemical methods of purification, that no foreign substance remains in the water. Gaertner expressed the opinion that too much importance has been attached to the finding of the colon bacillus in a water. Such a water is not necessarily nonpotable. He examined the dejecta of a menagerie and found the same colon bacillus in the tiger, elephant, ostrich, etc, and argued that as it is so widespread in nature it is going too far to always suspect typhoid because we find the colon bacillus.

The section unanimously passed a resolution to the effect that all governments should take steps to prevent the contamination of water courses, both from industrial and other sources, and that special protection should be enforced to prevent the contamination of drinking waters, and any such water that is suspected or could readily be contaminated should be sterilized.

TYPHOID.

Vaillard expressed the opinion that there may be various races of the bacillus typhosus. He found organisms in water that varied in but one particular from the text-book organism. He used Elsner's medium to isolate the bacillus from water, and found no difficulty in doing so. Some of these organisms, he stated, do not agglutinate.

In reply Gruber stated that there may be various races of the typhoid bacillus,

[illegible] certain [illegible] Elsner's method is of little use and seldom [illegible] very hard to find in water [illegible] of many [illegible] practically impossible.

[illegible] preferred gelatin [illegible] gelatin potato without the potas- [illegible] purpose.

[illegible] that a good method of finding the typhoid bacillus in water [illegible] He [illegible] that there are no races or varieties of the [illegible] of the many typhoid organisms he has [illegible] world he finds them constant in cultural and other [illegible] always agglutinate.

[illegible] typhoid bacillus in a well at Cuxhaven. The [illegible] until the fall and then [illegible] the well. There were [illegible] in the neighborhood [illegible] from drinking the infected water. He also [illegible] Elsner's [illegible] gelatin or gelatin potato.

[illegible] affirmed that the agglutinative property has no relation to virulence.

[illegible]

[illegible]

[illegible] Heat sterilization [illegible] of preserving food.

[illegible]

[illegible] of Halle that [illegible] process of manufacture [illegible]

[illegible] preserved [illegible] will have the date [illegible] stamped on the box.

R[illegible] American Public Health Association.

[illegible]

Treasury Department, M. H. S.,
Hygienic Laboratory,
[illegible]

[illegible] report of the twenty-eighth [illegible] American Public Health Association held at Indianapolis, [illegible]

[illegible] applied for space for [illegible] a large [illegible] the process of [illegible] and [illegible]

[illegible]

[illegible]

[illegible] were [illegible]

[illegible]

[illegible] attracted [illegible] the [illegible] examinations the [illegible] received from [illegible]

most prominent bacteriologists of the country, showed it to be in any deficient as a practical laboratory for the purpose intended.

My duties were such that I was unable to hear many of the papers read, therefore can only give a partial report upon the proceedings of the associatic

Several interesting papers were presented upon the bacillus coli communis variations, significance from a sanitary standpoint, etc.

Major Reed, surgeon, U. S. Army, read an account of the work of the commis of the U. S. Army detailed to investigate the etiology of yellow fever. His pa consisted of two parts. In the one he stated he was unable to find bacillus i roides in 18 cases of supposed yellow fever; in the second part he advanced theory that the mosquito (especially a species of culex common in Habana) the intermediary host of the yellow-fever organism. The evidence upon wl he based his claims was that of 11 nonimmunes bitten by mosquitoes which previously fed upon yellow-fever patients, two contracted the disease. Of tl two, one alone can be considered as being of any value as evidence in suppor his claim.

Dr. Bracken read an interesting paper upon leprosy and recommended th national asylum be established.

Surgeon Woodward, United States Marine-Hospital Service, read a paper u the foreign work of this Service.

At the close of the meeting the laboratory was repacked and shipped to Bureau. It arrived in good condition.

Respectfully,

DONALD H. CURRIE,
Assistant Surgeon, M. H.

SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Respectfully forwarded.

H. D. GEDDINGS,
Passed Assistant Surgeon, M. H. S., Acting Directo

ACCOUNTS.

VOUCHERS PASSED FOR PAYMENT AND SETTLEMENT.

During the year approximately 16,588 vouchers were passed by t division for payment or settlement.

The following is a statement of these vouchers in detail:

Paid by G. A. Bartlett, disbursing clerk	14
Referred to Auditor for examination and settlement	
Paid by collector of customs (as special disbursing agent)	
Porto Rico, paid by collector of customs (as special disbursing agent)	
Hawaii, paid by collector of customs (as special disbursing agent)	

FINANCIAL STATEMENT.

RECEIPTS AND EXPENDITURES, UNITED STATES MARINE-HOSPITAL SERVICE, FOR FISCAL YEAR ENDED JUNE 30, 1901.

The balance of the Marine-Hospital fund available at the commer ment of the fiscal year was $773,313.42, and the receipts from sources $960,757.11. The expenditures were $1,007,317.79.

Summary, Marine-Hospital fund.

Balance July 1, 1900		$773,31
Receipts, tonnage tax		904,04
Repayment, care foreign seamen, etc	$6,198.60	
Repayment, medical and hospital supplies quarantine stations, etc., and including Cuba, Porto Rico, and Philippine Islands	50,512.33	
		56,71
Total		1,734,07

Expenditures		
Maintenance of stations, purveying depot, etc.*	$971,217.79	
Salaries, Supervising Surgeon-General's Office	36,100.00	
Total		$1,007,317.79
Balance July 1, 1901		796,752.74

Statement of appropriations, quarantine service, 1901.

Appropriation July 1, 1900	...	$255,000.00
Deficiency appropriation (act March 3, 1901)		18,000.00
Reimbursement, care foreign seamen, etc		816.76
Total available		253,816.76
Expenditures July 1, 1900, to June 30, 1901		250,171.94
Balance July 1, 1901		3,644.82

Summary of expenditures, July 1, 1900, to June 30, 1901.

Name of station	Maintenance of stations, officers' salaries, interest, balances, expenses	Medical and hospital supplies	Total
Rhode Island	[illegible]	$1,[illegible]	[illegible]
Delaware Breakwater	[illegible]	[illegible]	[illegible]
Cape Charles	[illegible]	[illegible]	[illegible]
Cape Fear	[illegible]	[illegible]	[illegible]
Savannah	[illegible]	[illegible]	[illegible]
Point Comfort	[illegible]	[illegible]	[illegible]
Tortugas	[illegible]	[illegible]	[illegible]
Gulf	[illegible]	[illegible]	[illegible]
Pensacola	[illegible]	[illegible]	[illegible]
San Diego, Cal.	[illegible]	[illegible]	[illegible]
San Francisco	[illegible]	[illegible]	[illegible]
Port Townsend	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
Port [illegible]	[illegible]	[illegible]	[illegible]
Miscellaneous	[illegible]	[illegible]	[illegible]
Contingent	[illegible]		[illegible]
Total	[illegible]	[illegible]	[illegible]

* Part estimated.

Quarantine service, 1901.

REPAIRS OF VESSELS.

Deficiency appropriation, act March 3, 1901	
Amount of appropriation	$[illegible]
Amount expended and estimated	[illegible]

TERRITORY OF HAWAII.

Amount of appropriation (act June 6, 1900)	$[illegible]
Amount expended and authorized	[illegible]

Of the total expenditures at stations about $[illegible] was on account of items for which special appropriations were made in previous years, but not made this year, to be paid for out of the Marine Hospital fund, viz: Fuel, lights and water $[illegible], repairs of buildings $[illegible], furniture and repairs, $[illegible].

Preventing the spread of epidemic diseases.

Summary of expenditures, July 1, 1900, to June 30, 1901:		
Balance July 1, 1900		$468,581.96
Repayment, medical and hospital supplies, etc., including Cuba, Porto Rico, and Philippine Islands		6,233.26
Total available		474,815.22
Expenditures, July 1, 1900, to June 30, 1901:		
Foreign medical service: Salaries, traveling expenses, and miscellaneous	$46,732.85	
Sanitary inspection in United States: Salaries, traveling expenses, and miscellaneous, including investigation of plague, San Francisco, Cal. ($15,318.24)	33,279.01	
Yellow fever: Maintenance of detention camps, etc., as precaution against outbreak of yellow fever; medical and hospital supplies, salaries, and miscellaneous	52,735.46	
Texas border inspection, account yellow fever and smallpox in Mexico	12,178.41	
Philippine Islands, medical and hospital supplies, disinfecting apparatus, etc. (Marine-Hospital Service to be reimbursed)	3,365.85	
Nome and Egg Island, Alaska: Subsistence and miscellaneous supplies, account of smallpox	21,431.42	
Leprosy investigation (act of Congress March 2, 1899)	1,606.19	
Savannah, Ga.: Rent of station and miscellaneous	1,057.58	
Savannah, Ga.: Salaries and miscellaneous, account of smallpox	2,506.64	
Key West, Fla.: Services of schooner; removal of station	360.00	
Total		175,253.41
Balance		299,561.81
Appropriation (act March 3, 1901)		500,000.00
Total balance July 1, 1901		799,561.81

Appropriations for marine hospitals, act March 3, 1891.

Mobile, Ala., amount of appropriation	$1,500.00
Amount expended	1,500.00

Appropriations for quarantine stations, act August 1, 1888.

Cape Charles Quarantine:	
Balance July 1, 1900	$2,215.48
Balance July 1, 1901	2,215.48

Chesapeake Bay Quarantine Station, act March 3, 1893.

Balance July 1, 1900	$6,935.00
Balance July 1, 1901	6,935.00

Gulf Quarantine Station, acts March 3, 1891, August 5, 1892, and August 18, 1894.

Balance July 1, 1900	$1,347.57
Balance July 1, 1901	1,347.57

South Atlantic Quarantine Station, act March, 1895 (alteration to steamer for hospital barge).

Balance July 1, 1900	$1,000.00
Balance July 1, 1901	1,000.00

Brunswick, Ga., Quarantine Station, act June 4, 1897.

Balance July 1, 1900	$4.75
Balance July 1, 1901	4.75

Brunswick, Ga., Quarantine Station, act June 11, 1898.

Balance July 1, 1900	$340.12
Balance July 1, 1901	340.12

Gulf Quarantine Station, act June 11, 1898.

Balance July 1, 1900	$127.46
Balance July 1, 1901	127.46

Appropriations for quarantine stations, act March 3, 1899.

Rock Island Quarantine Station	
Balance July 1, 1900	$0.57
Balance July 1, 1901	.57
Brunswick, Ga., Quarantine Station	
Balance July 1, 1900	$51.53
Balance July 1, 1901	51.53
Gulf Quarantine Station	
Balance July 1, 1900	$19,972.30
Expended to June 30, 1901	19,133.14
Balance July 1, 1901	$839.16

Port Townsend Quarantine Station, act June 11, 1898.

Balance July 1, 1900	$372.70
Balance July 1, 1901	372.70

Delaware Breakwater Quarantine Station, act June 4, 1897.

Balance July 1, 1900	$2.00
Balance July 1, 1901	2.00

South Atlantic Quarantine Station, act June 4, 1897.

Balance July 1, 1900	$953.02
Balance July 1, 1901	953.02

Delaware Breakwater Quarantine Station, act July 1, 1898.

Balance July 1, 1900	$12.25
Balance July 1, 1901	12.25

Cape Charles, Va., Quarantine Station, act July [illegible], 1898.

Balance July 1, 1900	$15.00
Balance July 1, 1901	15.00

Brunswick, Ga., Quarantine Station, act July 1, 1898.

Balance July 1, 1900	$2.00
Balance July 1, 1901	2.00

Gulf Quarantine Station, act July 1, 1898.

Balance July 1, 1900	$119.76
Balance July 1, 1901	119.76

Astoria, Oreg., Quarantine Station, act July 1, 1898.

Balance July 1, 1900	$4
Balance July 1, 1901	4

San Francisco quarantine, fumigating steamer.

Balance July 1, 1900	$1,01
Balance July 1, 1901	1,01

Key West quarantine, disinfecting machinery.

Balance July 1, 1900	$90
Balance July 1, 1901	90

Appropriations, act June 6, 1900.

Marine hospitals (amounts transferred to Supervising Architect):	
Cleveland, Ohio	$5,00
Boston, Mass	4,50
Detroit, Mich	3,00
Mobile, Ala	2,50
San Francisco, Cal	8,00
St. Louis, Mo	1,00

Quarantine stations, act June, 6, 1900 (amounts transferred to Supervi Architect).

Reedy Island quarantine	$8,00
Delaware Breakwater	7,25
Cape Charles, Va	1,25
Brunswick, Ga	20,00
Gulf	7,15
South Atlantic	3,00
San Diego, Cal	23,75
San Francisco, Cal	131,70

Key West and Mullet Key, act June 6, 1900.

Amount of appropriation		$125,00
Amount transferred to Supervising Architect		50,00
Balance July 1, 1901		75,00

Savannah, Ga., act June 6, 1900.

Amount of appropriation		$30,00
Amount transferred to Supervising Architect	$9,500.00	
Amount expended for station, etc	20,217.80	
		29,71
Balance July 1, 1901		28

Washington, D. C. (laboratory building).

Amount of appropriation		$35,00
Transferred to Supervising Architect	$34,925.00	
Expended for plans, etc	75.00	
		35,00

ADMINISTRATIVE DETAILS CIRCULAR LETTERS, ETC.

The following circular letters have been prepared and issued during the year

CIRCULAR LETTER RELATIVE TO REQUISITIONS FOR SUPPLIES

To commissioned officers and acting assistant surgeons, U. S. Marine Hospital Service

Hereafter all requisitions for supplies and all proposals must be rendered in duplicate

Requisitions showing the "quantities on hand" as "serviceable" or as "worn out" must also show that articles noted as "worn out" have been inspected and condemned by an inspector or in exceptional cases where an inspection is impracticable at the time, a very full description of the articles must be given, date when purchased, and how they became unserviceable

Requisitions for articles not already on hand must be accompanied by a letter fully explaining their necessity, in order to receive attention

WALTER WYMAN
Surgeon-General, M. H. S.

CIRCULAR LETTER RELATIVE TO ISSUE OF NEW REQUISITION BLANKS.

To commissioned officers of the Marine Hospital Service

You are informed that a new edition of special requisition blank (Form 1906) has been prepared and is ready for issue by the Treasury Department (Division of Stationery, Printing, and Blanks) and you are directed to make special requisition Form 1906 for the quantity required for your station, upon receipt of which you will destroy the old blank Form 1905.

In this connection your attention is called to Section XLVI, page 44, paragraph 6 Instructions to Custodians of Public Buildings 1900, as follows

No articles of furniture or fixtures must be transferred from one office or room to another without previous authority from the Department

You will without delay prepare and forward the description and location of articles of furniture heretofore chargeable to the appropriation "Furniture and repairs of same for public buildings" as provided in paragraph 1 Section XLVI, Instructions to Custodians of Public Buildings, as follows

The returns must specify the office, room, and story of the building in which the articles are or were located and the number and description of the articles, care being taken to give the date of authority to purchase, sell, dispose or transfer, and the cost of the articles

Your attention is also called to paragraph 99 page 17 Regulations M. H. S., 1907, as follows

Articles of furniture when purchased for and assigned to the specified quarters of a commissioned officer shall not be changed to other quarters without special authority from the Bureau

Strict compliance with the above regulations is required You are directed to acknowledge receipt of this letter

Respectfully

WALTER WYMAN
Surgeon-General, M. H. S.

CIRCULAR LETTER RELATIVE TO THE TREATMENT OF INFECTED WARDS

To commissioned medical officers and acting assistant surgeons U. S. Marine Hospital Service

You are hereby directed to observe the following rules in regard to the treatment of infected wards

Whenever a patient suffering from a communicable disease has been under treatment in any ward or other portion of a United States marine hospital or in any ward of a private or municipal hospital used exclusively for the treatment of patients of this Service it shall be the duty of the medical officer in charge thereof to cause said ward or apartment to be disinfected as soon as practicable after the

recovery, death, or removal of the patient; the method of disinfection most suitable in each case to be determined at the discretion of the medical officer.

Tubercle of the lungs shall be regarded as a communicable disease within the meaning of this letter, and whenever it becomes necessary for patients suffering from the above-named disease to occupy a hospital ward for an indefinite period said ward shall be disinfected at least once a month.

Please acknowledge receipt of this letter.

WALTER WYMAN,
Surgeon-General, M. H. S.

CIRCULAR LETTER—TREATISE ON MILITARY HYGIENE TO BE FURNISHED OFFICERS.

To commissioned medical officers, U. S. Marine-Hospital Service:

You are informed that a work on the Theory and Practice of Military Hygiene, by Edward L. Munson, M. D., will be furnished to the regular relief and quarantine stations of the Service, which are under the command of commissioned officers. As the subjects discussed in this treatise, especially the sections dealing with general hygiene, physical examinations, management and sanitation of hospitals and camps, food and water supply, disinfection, etc., have a direct bearing upon the work of the Service, medical officers appearing for examination preliminary to promotion may expect to be examined on the topics discussed therein. Medical officers not attached to regular stations may obtain this work on special requisition.

You are directed to acknowledge the receipt of this letter.

WALTER WYMAN,
Surgeon-General, M. H. S.

DIVISION OF MARINE HOSPITALS AND RELIEF.

25145 103 6 81

REPORT OF DIVISION OF MARINE HOSPITALS AND RELIEF.

By L. L. Williams,

Surgeon, Marine-Hospital Service, in Charge.

The Service owns and operates 21 marine hospitals, and operates 2 additional hospitals in leased buildings (New York, N. Y., and Dutch Harbor, Alaska). There are, in addition, 115 relief stations where patients receive treatment.

PATIENTS TREATED.

During the year 58,381 patients were treated by this Service:

Hospital patients	13,341
Out patients	45,040
Days hospital relief furnished	346,844

AID TO OTHER SERVICES.

Revenue Cutter Service.—During the year 932 applicants for enlistment were examined; 777 passed, and 155 were rejected for physical defects.

Steamboat-Inspection Service.—During the year 1,644 pilots were examined as to their visual capacity. Of this number, 1,550 were passed, and 94 rejected on account of visual defects.

Life-Saving Service.—There were examined during the year 1,445 keepers and surfmen, of whom 81 were rejected as physically unfit to perform the duties required.

Light-House Service.—Ten applicants for appointment in this Service were physically examined during the year. Of this number, 2 were rejected.

Coast and Geodetic Survey.—During the fiscal year 30 applicants for enlistment in this Service were examined. Of this number, 9 were rejected as physically unfit.

Navy Department.—Twenty-four applicants for positions on navy colliers were physically examined during the year and 1 rejected.

OTHER EXAMINATIONS.

Twenty-two applicants for appointment as hospital steward in the Marine Hospital Service were physically examined and 1 rejected.

During the year 110 merchant seamen were examined as to their physical fitness for sea duty.

NEW RELIEF STATIONS.

Relief stations of the second class have been established during the fiscal year at the ports of Honolulu, Hawaii, San Juan, P. R., and Ponce, P. R.

T OF DIVISION OF MARINE HOSPITALS AND

By L. L. Williams,

Surgeon, Marine-Hospital Service, in Charge.

rvice owns and operates 21 marine hospitals, [illegible] 1
l hospitals in leased buildings (New York, [illegible] Jacks
Alaska). There are, in addition, [illegible] his
nsive treatment.

PATIENTS TREATED

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f the year 30,391 patients were treated [illegible]

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AID TO OTHER [illegible]

ne-Collier Service.—During the [illegible]
e examined; 777 passed and [illegible]

outh Inspection Service.—[illegible]
l as to their visual [illegible]
and 94 rejected on [illegible]

[illegible] THE MEDICAL

rvey Service.—There [illegible]
and surfmen, of whom [illegible]
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[illegible] *ying* depot for the fiscal
[illegible] *tion* of the Bureau. The
[illegible] *record* of its first year's
[illegible] *ing* beyond a brief *resume*

House Service.—The [illegible]
physically examined [illegible]
[illegible]

nal Goodale Service.—The [illegible] was considerably augmented
[illegible] through the assumption by the
[illegible] *ous* appropriations covering
[illegible] the several items of fuel, lights,
[illegible] and repairs and preservation of
[illegible] carried on only for the first six
[illegible] *ntinuance* having been canceled when
[illegible] made in December. In all other
[illegible] along lines heretofore marked out
[illegible] previous years can not be made to
[illegible] amount and character of the
[illegible]

[illegible]

[illegible] of the previous
[illegible] *ly* appropriations gained
[illegible]

SEAMEN EMPLOYED ON NAVY COLLIERS ENTITLED TO RELIEF.

Under a decision rendered by the Assistant Comptroller of t Treasury, as set forth in the following correspondence, seam employed on navy colliers are entitled to the benefits of the Mari Hospital Service:

DEPARTMENT OF THE NAVY, BUREAU OF NAVIGATION,
Washington, D. C., June 24, 190

SIR: The Bureau forwards herewith a telegram signed "Thompson," presu ably from Theodore S. Thompson, pay inspector, U. S. Navy, in charge of t Navy pay office at San Francisco, Cal.

2. The circumstances in this case are as follows: Albert Hilton, while servi as third officer of the navy collier *Nero*, was injured in the performance of l duties on board the *Nero* at sea, and upon her arrival at Norfolk was transfer to the marine hospital at that port and was treated there up to the time of l discharge, when the Bureau settled with him by paying him an additional c month's pay and transferring him back to San Francisco, the port of his enli ment. At this time Hilton was told to visit the surgeon in charge at the he quarters of the Marine-Hospital Service at Washington and ascertain whether could not receive further treatment at the marine hospital in San Francisco up his arrival there, and if he was informed that such treatment could not be recei to return to this Bureau, where his case would be given further consideration.

3. Upon his arrival in San Francisco he informed the Bureau of Navigati Navy Department, that he would not be received in the marine hospital at S Francisco excepting by application from this Bureau, whereupon a representa of this Bureau interviewed Surgeon Williams, of the Marine-Hospital Servi and upon recommendation of Surgeon Williams the Bureau wired the surgeo charge marine hospital, San Francisco, as follows: "Albert Hilton was inju while serving as third officer aboard collier *Nero*, and was treated in marine h pital, Norfolk. Consider him eligible now for treatment marine hospital:" a to Albert Hilton as follows: "Apply surgeon marine hospital for treatment:" a received to-day the inclosed telegram, signed "Thompson."

4. The Bureau incloses a copy of the decision of the Comptroller of the Tre ury Department in which it will be seen that the Comptroller holds that t seamen serving on the navy colliers are entitled to all the benefits accorded American seamen in the merchant-marine service, and it is this Bureau's opini that Hilton is entitled to treatment in the marine hospital at San Francisco un regulations for the U. S. Marine-Hospital Service.

5. If you concur in this opinion, the Bureau will thank you if you will kin wire the surgeon in charge marine hospital at San Francisco to admit Hilton f further treatment.

6. There is no appropriation for the Navy to which treatment of this man co be charged, as he is not an enlisted man in the Navy, but a discharged merch seaman.

Respectfully,

WM. S. COWLES,
Acting Chief of Bureau.

SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Inclosures.—Telegram.]

SAN FRANCISCO, CAL., *June 22, 190*

NAVIGATION, *Navy Department, Washington, D. C.*

Referring Bureau's telegrams to Albert Hilton, late *Nero*, and marine hosp surgeon hospital demands formal application from Bureau for Hilton's admitta and guaranty of expenses. Please answer to hospital.

THOMPSO

TREASURY DEPARTMENT,
OFFICE OF COMPTROLLER OF THE TREASURY,
Washington, June 5

SIR: I have, by your reference, the papers relating to
covering cost of transportation from London.
one month's additional wages, of Adolph
Nero. You desire my decision as to wh
charge against the Navy Departn

fund for the maintenance and transportation of destitute American seamen. A decision is further requested upon the general question of the right of seamen on the navy receivers to relief as merchant seamen, as these men are not enlisted men of the Navy but contract with the master of the vessel and sign shipping articles for merchant seamen in accordance with the navigation laws of the United States.

In reply I have to state that the facts presented are not sufficient to enable me to render a decision upon the payment of the amount expended for transportation in the particular case, nor upon the question of the payment of additional wages. The propriety of such payments depends upon the manner of the man's discharge or separation from his vessel, and these facts are not given.

I am of the opinion, however, that American seamen on board vessels in the service of the United States who sign shipping articles, as in the case of ordinary merchant seamen, and who are not regularly enlisted in the naval service, are entitled to the benefits accorded to American seamen in the merchant marine service.

If a decision be required upon the payment of these particular items I shall be glad to have the matter again referred upon a statement of facts showing the manner of the man's discharge or separation from his vessel and the circumstances of his return to the United States.

All papers are returned herewith.

Respectfully,

L. P. MITCHELL,
Acting Comptroller.

The Secretary of the Navy.

HANDBOOK FOR SHIP'S MEDICINE CHEST.

A Handbook for the Ship's Medicine Chest, by Surg. George W. Stoner, Marine Hospital Service, has been issued to the various relief stations for distribution to masters of vessels. This book is intended as a guide for masters of vessels in the emergency treatment of disease and injuries occurring at sea, when skilled treatment is not obtainable. The author has avoided the use of technical terms, and has prepared a manual which, it is believed, will materially contribute to an intelligent use of the ship's medicine chest, which forms a part of the equipment of all seagoing vessels.

[illegible] DEPOT AT NEW YORK. REPORT OF THE MEDICAL [illegible] EDWARDS.

[illegible] report of the operations of the purveying depot for the fiscal year [illegible] is submitted for the information of the Bureau. The [illegible] report of its installation and the record of its first year's operations [illegible] the necessity of anything beyond a brief resume [illegible]

[illegible] year the work of the depot was considerably augmented [illegible] through the assumption by the Service [illegible] account of miscellaneous appropriations covering [illegible] charged under the several items of [illegible] repairs of furniture and repairs and preservation of [illegible] was carried [illegible] year the order for [illegible] having been [illegible] supplies were made in December. In all other respects the work of the depot was continued along lines [illegible] the work of the previous years and [illegible] of the [illegible] differences in the amount and character of the work performed at various times within the fiscal year.

STAFF.

The working staff at this depot remains the same as at the [illegible] of the previous fiscal year, and the value of the services rendered [illegible] in the special character of the work done at this depot [illegible] with satisfactory [illegible] faithful and interested assistance. [illegible] shown for salaries [illegible] the [illegible] fiscal year is explained by the [illegible] during the first [illegible] the working force at the depot had not been selected or [illegible] its installation. There has been no increase [illegible] fiscal year.

FINANCIAL STATEMENT.

During the past fiscal year the total amount of bills rendered for expense incurred by this depot is $161,737.28, as compared with the record of the previous year, $176,409.79. The expenditures of the past fiscal year have been divided into classes as follows:

Bills passed for supplies.

Dry goods, etc	$24,246.4[illegible]
Carpets	2,916.6[illegible]
Equipment, purveying depot	353.3[illegible]
Surgical instruments and appliances	10,893.7[illegible]
Microscopical, bacteriological, and photographic supplies	2,713.2[illegible]
Rubber goods	2,456.[illegible]
Beds and bedding	8,648.2[illegible]
Bottles	1,427.2[illegible]
Toilet and wrapping paper	1,436.6[illegible]
Wines and liquors	3,104.8[illegible]
Flags	1,264.1[illegible]
Aseptic hospital furniture, etc	5,997.5[illegible]
Hospital stores	12,685.3[illegible]
Books and journals	3,574.0[illegible]
Miscellaneous articles, pharmacal implements, etc	2,097.8[illegible]
Disinfectants	13,708.2[illegible]
Operating expenses depot, rent, telephone, fuel, light, cartage, etc	10,342.[illegible]
Chemical glassware and apparatus	649.7[illegible]
Station equipment	28,584.2[illegible]
Medical supplies	24,641.1[illegible]
Total	161,737.2[illegible]

The above does not seem to call for any comment beyond stating that if comparison be made with similar table of the previous fiscal year it will show both increases and decreases in certain lines of purchases, which are explained by the fact that the necessities of the Service vary in particular things from year to year.

REIMBURSEMENTS.

The following is a summary of the purchases made for various branches of the Government service, and for the operations conducted by the Marine-Hospital Service in Cuba and the Philippine Islands. No separate statement is rendered for Porto Rico and Hawaii, which are now a part of the territory of the United States. Last year the total amount of reimbursements was $28,376.08, which, as I then stated, was "largely in excess of all my expectations on this subject;" but it will be noted that this year the amount has doubled, by which the net expenditures chargeable to the marine-hospital fund are reduced to $121,602.68, a sum within a few thousand dollars of the net amount expended during the previous fiscal year.

Reimbursement for supplies issued to other branches of the Service and other services.

Immigration Service	$5,364.1[illegible]
Treasury Department	59.9[illegible]
Coast and Geodetic Survey	1,721.6[illegible]
Island of Cuba	13,724.3[illegible]
Philippine Islands	9,647.7[illegible]
Epidemic fund	7,723.3[illegible]
Quarantine fund	18,383.5[illegible]
	56,624.8[illegible]
Net expenditures marine-hospital fund	105,112.3[illegible]
Salaries	15,890.3[illegible]
Commutation	600.0[illegible]
Grand total	121,602.6[illegible]

The net value of the stock on hand at the close of the fiscal year ended June 30, 1901, was $53,455.05.

SHIPMENTS.

The total output from this depot has increased over that of the previous fiscal year, both in the number of requisitions filled and in the total weight of the packages shipped. The following table gives a detailed summary of the work done:

REQUISITIONS FOR FISCAL YEAR 1901.

Quarantine stations and steamers		110
Epidemic stations		37
Hospital stations, first, second, third, and fourth class		623
Colonial		83
Immigration Service		10
Coast and Geodetic Survey		9
Filled by Bureau (vaccine)		87
		961
Number of packages		11,085
Total weight	pounds	676,325

INSPECTIONS.

The system of inspection of supplies for this Service, which is being carried on at the depot, insures, with one important exception, the supplies required by the Service in accordance with specifications and proposals. This exception, to which I refer, is that of medical supplies, and during the past fiscal year I have made specific recommendation that facilities should be devised for the examination of drugs and chemicals in order to ascertain their purity and standard as compared with pharmacopœial requirements. I am satisfied that this should be done without further postponement. In many instances bids are made for drugs and chemicals which are so dangerously below the market prices that doubt is necessarily cast upon their purity. This depot has no facilities for the performance of delicate laboratory tests and the character of the work carried on here does not render it a suitable place for that class of professional labor.

Respectfully submitted,

CHAS. E. BANKS,
Surgeon and Medical Purveyor, M. H. S.

SURGEON GENERAL, MARINE-HOSPITAL SERVICE.

SANATORIUM FOR CONSUMPTIVES, FORT STANTON, N. MEX.—REPORT OF MEDICAL OFFICER IN COMMAND.

MARINE-HOSPITAL SERVICE,
OFFICE OF MEDICAL OFFICER IN COMMAND,
Fort Stanton, N. Mex., November 20, 1901.

SIR: In accordance with directions contained in Bureau letter, October 18, 1901, I have the honor to make the following report of the operations of the Service at this station for the fiscal year ended June 30, 1901. It is necessary for a proper presentation of the subject to include statistics of the farm, garden, etc., for the season of 1901 instead of for the fiscal year.

Clinical report, July 1, 1900, to June 30, 1901.

Number of cases under treatment July 1, 1900		47
Number of cases admitted during the year		105
		152
Discharged		
Cured	12	
Improved	43	
Not improved	6	
Died	17	
		78
Under treatment June 30, 1901		74
Approximate average duration of disease	months	20
Cases complicated with syphilis		24
Cases complicated with malaria		23

Of the 47 cases under treatment July 1, 1901, 12 were good cases on admissi
14 were fair cases on admission, 21 were bad cases on admission.

Their disposition was as follows:

Discharged:
Cured .....
Improved .....
Not improved .....
Died .....

Remaining June 30, 1901 .....

Total .....

Character of 105 cases admitted:
Good .....
Fair .....
Bad .....

Their disposition was as follows:

Discharged;
Cured .....
Improved .....
Not improved .....
Died .....

Total remaining June 30, 1901 .....

Total .....

REPORT OF FATAL CASES.

Patient.	Age.	Condition of lungs on admission.	Previous duration of disease.	Complications.	Cause of death.	Necropsy.	Day ho ta Fo St tom M
Holm ..	27	Fair	4 years ..	Malaria	Tuberculosis.	Pulmonary and intestinal tuberculosis.	
Ponce .	45	Good .	2 months.	Malaria, syphilis, acute nephritis.	Acute nephritis.	Lungs cured, congested kidneys, gummata.	
Peterson, I	28	Fair	6 months.	Meningitis...	Tubercular meningitis.	Tuberculosis of lungs and brain.	
Tobin . ..	60	Good .	2 months.	Carcinoma...	Carcinoma...	Carcinoma of liver and stomach, lungs healed.	
Peterson, A	25	Bad	1 year	.....	Tuberculosis.	Pulmonary and intestinal tuberculosis.	
Rollins ..	35	do ..	9 months	Hemorrhage.	Pulmonary hemorrhage.	Lungs healing	
Tracy .	27	do	2 years .	Malaria	Tuberculosis.	Pulmonary and intestinal tuberculosis.	
McLaughlin	36	do	13 months	Syphilis, ascites.	....do	Amyloid of intestines and pulmonary tuberculosis.	
Conroy ...	32	do	12 months	Syphilis.....	.....do	Adrenal tuberculosis.	
Rankman	45	do	4 months.	Malaria, larynx involved.	.....do	Tuberculosis of larynx.	
Flynn	42	do	21 months	.....do	.....do	.....do	
Cummings	30	do .	3 years .	.....do	.....do	Pulmonary and laryngeal tuberculosis.	
Vaun	43	do .	14 months	Syphilis.....	.....do	Intestinal tuberculosis.	
Hulett	30	do	7 months	Malaria, larynx involved.	.....do	Intestinal and laryngeal tuberculosis.	
Wilson ..	30	do	4 months	Syphilis.....	.....do	Intestinal tuberculosis.	
rtchy .	38	do	7 months.	Malaria ...	.....do	Pulmonary tuberculosis.	
nuum	36	do	...do ...	....do	.....do	.....do	

Total number of fatal cases, 17, of which 15 were complicated with one or more other diseases, as follows:

Malaria	9
Syphilis	5
Laryngitis	4
Carcinoma	1
Acute nephritis	1
Meningitis	1

In listed in the total fatal cases there is 1 from cancer and 1 from acute nephritis. In these cases the lungs were found to be practically healed at the necropsies, of the cases discharged improved 5 became "cured" cases while employed as attendants. Attention is invited to the large proportion of bad cases, and results must be judged with this fact in view.

The following are classed as "bad" cases in this report:

(1) Those in which there is much lung tissue involved, approximately two-thirds to one entire lung or a considerable portion of each lung.

(2) Those in which there is involvement of other tissues than the lungs or in which malaria complicates.

3. Those in which there is evidence of rapid advancement of the tubercular process, irrespective of extent of tissue involved.

The cases complicated with syphilis as a rule run a favorable course, while those having malaria do not. All the syphilitic cases contracted that disease (apparently) before tuberculosis, and this complication appears to be somewhat to the patients' advantage. Malaria, on the contrary, exerts a baneful influence when complicating tuberculosis.

Every effort has been made to prevent infection of the station, but in spite of the most earnest representations of the danger of the practice, some patients will spit on the ground surreptitiously. All such sputum has been, when discovered, carefully destroyed, and finally the patients were mustered and informed in the most emphatic language that anyone convicted of spitting anywhere except in his sputum cup would be instantly dismissed. This rule has apparently had the desired effect and there have been no known infractions. Remembering that many of the patients admitted to this sanatorium are ignorant and do not readily grasp the idea of danger in the common practice of spitting at will without regard to time, place, or circumstance, it seems advisable to make obedience to sanitary rules as easy as possible. I have therefore to recommend the entire discontinuance of the use of the metal or other sputum cups requiring steam disinfection and the substitution of cups both pocket and bedside, made of paper or other material easily destructible by fire. Disinfection of sputum by steam is both expensive and offensive. Of course steam disinfection for bedding, etc., must continue to be employed. Effort is being made to devise a practical destructible pocket cup, of which later report will be made.

WATER SUPPLY AND IRRIGATION DITCHES.

The large reservoir is fed by Ditch No. 1, 3 miles long. Much labor is necessary to keep this ditch in order, but this is cheaper than pumping and the water, while frequently muddy, is softer than the well water supplied by the gasoline engine.

Ditches Nos. 2 and 3 supply water for irrigating the gardens and farm, respectively. These ditches require less care than No. 1, but all the ditches need extensive overhauling and the dam for Ditch No. 1 must be rebuilt before next spring.

REPORT OF FARM.

Labor and seed		$459 [illegible]
Products of farm:		
[illegible] tons hay valued at $8.00	$1,[illegible]	
[illegible] tons alfalfa hay valued at $15.00	1,[illegible]	
[illegible] bushels corn valued at 75 cents	[illegible]	
[illegible] tons corn fodder valued at $15.00	[illegible]	
		1,486.25
Showing profit of		1,026.[illegible]

REPORT OF GARDEN.

The garden has produced the following:

Beans, string, 269 pounds, at 3 cents	$8.07
Beans, dry, 275 pounds, at 5½ cents	15.12
Beets, 1,166 pounds, at 2½ cents	29.15
Cabbage, 9,604 pounds, at 3 cents	288.12
Cauliflower, 58 pounds, at 5 cents	2.90
Cantaloupes, 1,395 pounds, at 2 cents	27.90
Celery, 955 pounds, at 2 cents	19.10
Cucumbers, 8,312 pounds, at 1 cent	83.12
Lettuce, 430 pounds, at 5 cents	21.50
Watermelons, 10,275 pounds, at 1 cent	102.75
Okra, 96 pounds, at 10 cents	9.60
Onions, 2,517 pounds, at 4 cents	100.68
Pease, green, 522 pounds, at 6 cents	31.32
Radishes, 866 pounds, at 3 cents	25.98
Rhubarb, 20 pounds, at 10 cents	2.00
Squashes, 5,845 pounds, at 2 cents	116.90
Tomatoes, 830 pounds, at 5 cents	41.50
Turnips, 9,784 pounds, at 1 cent	97.84
Parsnips, 900 pounds, at 3 cents	27.00
Corn fodder, 8 tons, at $15	120.00
Hay, 75 pounds	.50
Bean straw, 595 pounds	4.00
Pea-vine hay, 60 pounds	.50
Corn, sweet, 8,326 ears, at 1 cent	83.26
	1,256.91
Cost of garden (labor and seed)	530.91
Showing profit for garden of	726.20

REPORT OF DAIRY.

The dairy herd now (November 30) consists of 46 Jersey cows, 1 Holstein cow, 4 Jersey bulls, and 13 heifer yearlings and calves. Nine Jersey steers (yearlings) and 1 Holstein steer are being fattened for beef. Twenty-six of these cows and 3 bulls were purchased in January, 1901.

The product of milk for the fiscal year was 13,245 gallons and the cost of production 21½ cents per gallon. The market price of milk in this locality is 40 cents per gallon and the supply is very limited, so that the maintenance of a dairy is an absolute necessity as well as economical. In addition to the milk the dairy is now producing a portion of the butter supply (75 pounds in November, 1901). The last cows purchased were not of high grade and did not add so largely to the milk supply as had been expected, but there seems no probability that further purchases of milk cattle will become necessary, since by selection from the natural increase the milk herd can be recruited and added to as the needs of the station increase.

RANGE CATTLE AND HOGS.

One hundred head of range cattle were purchased in the spring of 1901 at a cost of $1,990; 20 of these are steers, which with the Jersey steers will furnish the station with fresh beef during the last quarter of the current fiscal year (1902). Their value at contract price will be approximately $1,200, leaving on hand 80 range cattle, the net cost of which will thus be reduced to approximately $800.

The station has a drove of 105 hogs of all ages. They have been raised at no expense (except for fences, pens, etc.), having been fed on the kitchen refuse. Twenty-five of these hogs are now being fattened on station-raised corn, and when butchered in December will yield about 5,000 pounds of ham, bacon, sausage, and lard, and materially reduce the expenditures for these products. There seems no reason why all pork products should not be home raised in the future. During the fiscal year 730 pounds of home-grown pork has been used.

CHICKENS AND HARES.

The raising of chickens has not heretofore proven profitable, partly because young hens could not be purchased and partly because the incubator was a complete failure. This season the old-fashioned method of hatching was used with very good results. Beginning the season with 40 chickens, we now have 181, having killed for subsistence 30 and supplied the hospital with 130 dozen fresh eggs.

The Belgian hares have done well. One hundred and forty were on hand at the beginning of the fiscal year, 206 have been killed for subsistence, and the number now on hand is 334. Hares are now put on the bill of fare twice each month. They will weigh, dressed, from 3 to 4 pounds each, so that the value of those used is about $100. A sufficient number of guinea pigs are bred in the chicken yard for the experimental work of the station.

From this time on the value of the hares slaughtered for food will about pay the expenses of the chicken and hare yard, leaving the poultry as profit. I have recently added to the poultry yard a number of pigeons, which may be raised without cost and will serve to furnish a welcome addition to the diet list for very sick patients.

DONATIONS.

It is desired to make acknowledgment of the following donations made during the fiscal year:

Miss Helen M. Gould, of New York (through the International Committee of the Young Men's Christian Association), 500 bound volumes for the library, 1 handsome music box, 1 punching bag and gloves, 1 base ball outfit, and a number of indoor games.

Seaman's Friend Society, of New York, 500 bound volumes for library.

Mr. W. P. Thompson, of Captan, N. Mex., 2 golf outfits.

Officers of the Service have donated 2 golf outfits and sundry in and out door games; others interested in the welfare of the sailors have donated books, periodicals and newspapers, and the library now contains 1,352 volumes of good, wholesome books, 985 of which are nicely bound.

I have had a golf course laid out as a hygienic measure and it is used every day by from six to a dozen patients. It is regretted that many donors of books failed to give their names, and that in consequence specific acknowledgment can not be made.

Respectfully,

P. M. CARRINGTON,
Surgeon, M. H. S., in Command.

SURGEON GENERAL MARINE-HOSPITAL SERVICE.

CARE OF SEAMEN.

The provisions made for the care of seamen for the fiscal year ending June 30, 1901, at all ports where relief is regularly furnished are set forth in Department circular No. 81, dated June 6, 1900, and for the fiscal year ending June 30, 1902, in Department Circular No. 67, dated June 12, 1901.

REPORTS OF FATAL CASES, WITH NECROPSIES.

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MALARIAL FEVER, PERNICIOUS.

E. C., age, 24 years, native of the United States; was admitted to Providence Hospital, Washington, D. C., October 22, 1900; died October 24.

History.—On admission the patient was very ill, with rapid pulse and temperature of 40° C., some dyspnœa, œdema of both feet and of the left arm, none in the right. Physical examination: The skin had a faintly yellowish tinge, the spleen was enlarged, liver doubtful. No eruption present. He had had during the previous ten days several chills and had been exposed, lying out in the wet and cold. Examination of the blood showed malarial organisms.

In spite of large doses of quinine hypodermatically and per rectum, between 4 and 6 grains a day begun after coma set in, there was no improvement, and the patient died after being comatose about sixteen hours.

Necropsy (about eighteen hours after death).—The body of a man, about 25 years of age, of medium length. Skin of slightly yellowish tint over the body, greenish in the iliac regions, lividity of dependent portions; cadaveric rigidity well established; pupils normal in size, midway. Section: Very little fat under the skin. Pleuritic adhesions of both pleuræ, especially of the left posteriorly from apex nearly to the base; from 250 to 300 c. c. of yellowish fluid in each pleural cavity. Both lungs œdematous all over, pitting on pressure, hypostatic congestion posteriorly at the base of each, worse on the left side, where a good-sized area was hepatized and sank in water, the apex of the left lung contained scars and two or three hard nodules of a fibrous character.

The pericardium contained about 125 c. c. of fluid, heart appeared pale and flabby, about normal size, chambers empty, with the exception of whitish clots extending into the aorta and pulmonary arteries; induration of aortic and mitral valves. (A systolic murmur was audible in life.)

The liver was congested, dark in color, possibly slightly enlarged; gall bladder partially collapsed, due to apparent normal. Spleen weighed 718 grams, very large, and was adherent over most of its convex surface to the side of the abdominal wall. The intestines were slightly distended with gas, the appendix and Peyer's patches appeared normal. The kidneys were normal in size, capsule stripping normally, but over the lower end of each was a dark purple area covering the lower end and extending upward toward the hilum, on the left side including the hilum. The suprarenal capsules appeared normal, mesenteric glands slightly enlarged.

G. T. V.

MALARIAL FEVER, REMITTENT; TUBERCLE OF LUNG—MITRAL INSUFFICIENCY WITH REGURGITATION.

A. G., age, 27 years; nativity, France, admitted to the United States Marine Hospital, port of San Francisco, Cal., June 1, died June 8, 1901.

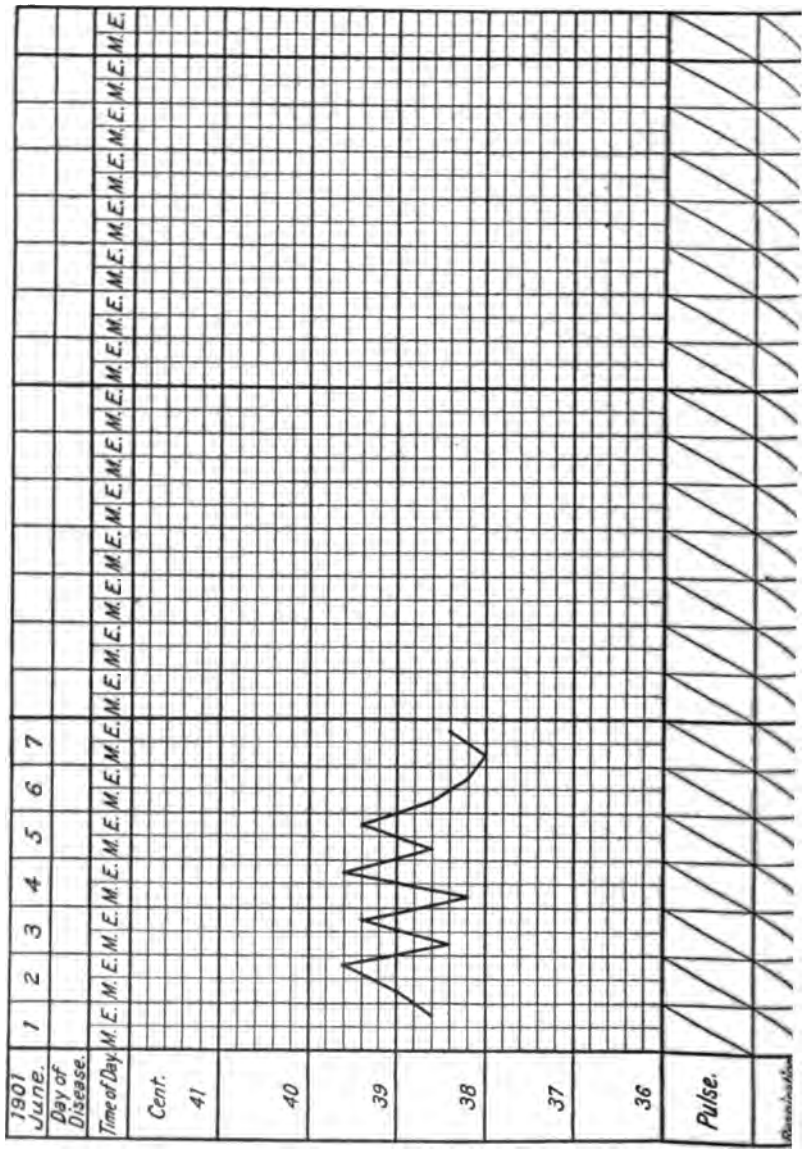
History.—Patient complained of a severe cold on admission, had lost weight, was very weak, had headache, cough with sputum, chills but no night sweats. Examination showed consolidation, dullness over upper lobe of right lung, apex, both anterior and posterior, of left lung. There was diminished resonance over both lungs. Breathing roughened, no râles. Expansion of left lung less than right. Heart intermittent, mitral systolic murmur, pulse rapid, temperature 39.6° C. Microscopic examination of sputum failed to show tubercle bacilli. Microscopic examination of blood showed plasmodia malariæ. Patient in a few days became very dyspnœic, but appeared comfortable on June 7, the dyspnœa not being urgent. June 8, 4.30 a. m., death, due to cardiac failure.

Treatment.—On admission patient placed on whisky every three hours and ammonium chloride. After the discovery of the plasmodia Warburg's tincture was given in 5 c. c. doses every two hours, with a dose 10 c. c. to anticipate the

evening chill. On June 7 patient was placed on strychnine sulphate, and th ammonium chloride was stopped.

Necropsy (ten hours after death).—Body of a young adult male, fairly we nourished, cadaveric rigidity present, no suggillations; height, 165 cm.; weigh 50.4 kilos. Brain: Weight, 1,320 grams; normal. Serous effusion in subdur space. Heart: Weight, 320 grams; pericardium contains 75 c. c. of a clear serou

U. S. Marine Hospital, port of San Francisco, Cal.
Name, A. G.; age, 27 years; disease, malarial fever, remittent, tubercle of lung, mitral insufficiency.



fluid. Aortic valve competent by hydrostatic test; normal in appearance. Mit valve insufficient; posterior flap shrunken. Wall of left ventricle hypertrophi wall of right ventricle normal. Right pleural cavity contains quite an amount fluid. Right lung: Weight, 500 grams; adherent throughout; heavy bands pleura. Apex consolidated; section shows miliary tubercles; increase of inter tial tissue; middle lobe shows large cavity, 7 cm. in diameter, lined with a whi

[illegible]

[illegible]

[illegible] MALARIAL FEVER [illegible] MAC[illegible] FORM

[illegible]

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A. G., age, 27 years; nativity, France; admitted to the United States Marine Hospital, port of San Francisco, Cal., June 1; died June 8, 1901.

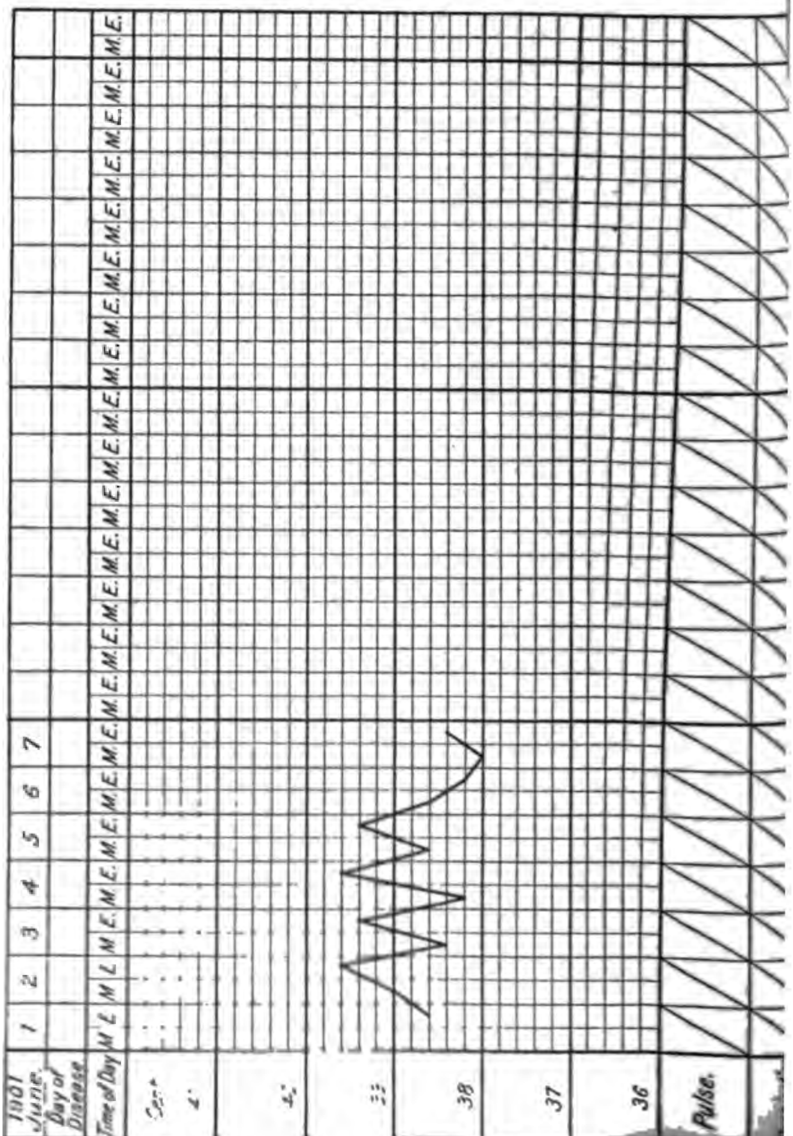
History.—Patient complained of a severe cold on admission; had lost weight, was very weak; had headache, cough with sputum, chills, but no night sweats. Examination showed emaciation, dullness over upper lobe of right lung, apex, both anterior and posterior, of left lung. There was diminished resonance over both lungs. Breathing roughened; no rales. Expansion of left lung less than right. Heart intermittent; mitral systolic murmur; pulse rapid; temperature 38.6° C. Microscopic examination of sputum failed to show tubercle bacilli. Microscopic examination of blood showed plasmodia malariæ. Patient in a few days became very dyspnœic, but appeared comfortable on June 7, the dyspnœa not being urgent. June 8, 4.30 a. m., death, due to cardiac failure.

Treatment.—On admission patient placed on whisky every three hours and ammonium chloride. After the discovery of the plasmodia Warburg's tincture was given in 5 c. c. doses every two hours with a dose 10 c. c. to anticipate the

evening chill. On June 7 patient was placed on strychnine sulphate, and the ammonium chloride was stopped.

Necropsy (ten hours after death).—Body of a young adult male, fairly well nourished, cadaveric rigidity present, no suggillations; height, 165 cm.; weight, 50.4 kilos. Brain: Weight, 1,320 grams; normal. Serous effusion in subdural space. Heart: Weight, 320 grams; pericardium contains 75 c. c. of a clear serous

Marine Hospital port of San Francisco, Cal.
Name, A. G., age, 27 years; disease, malarial fever, remittent, tubercle of lung, mitral insufficiency.



fluid. Aortic valve competent by hydrostatic test, normal
valve insufficient, posterior flap shrunken. Wall of left v
wall of right ventricle normal. Right pleural cavity cont
fluid. Right lung: Weight, 500 grams; thron
pleura. Apex consolidated, section sh
tial tissue; middle lobe shows large cav

[illegible]

[illegible]

PERNICIOUS MALARIAL FEVER [illegible] MALIGNANT FORM

[illegible]

[illegible] apparently normal. [illegible] hemorrhage [illegible] Pericardium [illegible] Heart [illegible] muscle firm, that [illegible] somewhat thinner than normal [illegible] valve which leaks water on testing. Val[illegible] Mitral [illegible] valve three fingers. Valve flaps [illegible] Pulmonary valve and [illegible] normality. Eli[illegible] valve three [illegible] Left pleura [illegible] adhesions below [illegible] Left lung weighs 700 grams, floats and crepitates. L[illegible] and somewhat edematous, upper apparently normal. Right pleu[illegible] adhesions. Right lung weighs 650 grams, floats, crepitates, otherwise like left. Great vessels of thorax apparently normal. Omentum [illegible] considerable fat, otherwise normal. Spleen weighs 335 grams; en[illegible] very soft, slate-colored pulp inverted and swells above level of cut cap[illegible] marked extent. Left kidney in normal position, covered with considerab[illegible] about normal in size; weighs 240 grams. Capsule strips easily. Gross s[illegible] Markings plain. Cortex yellowish and dull-appearing throughout. Supr[illegible] body appears normal. Right kidney in normal position, weighs 220 grams. [illegible] rule nonadherent. Gross section: Yellow color more marked than in th[illegible] Bladder contracted, contains about 10 c. c. of thick, yellowish urine. M[illegible] membrane congested, thick, and presents six ulcers on posterior surface. [illegible] vary from 3.2 to 6.4 mm. in diameter; have a somewhat punched-out appe[illegible] extending through mucous membrane. Rectum: Mucous membrane con[illegible] duodenum normal. Stomach normal. Small intestines normal. Large [illegible] tines. Mucous membrane congested throughout. Liver weighs 2,130 grams [illegible] friable. Section presents evidences of granulo-fatty changes.

J. M[illegible]
G. V[illegible]

ULCER OF EPIGLOTTIS—ŒDEMA OF GLOTTIS—SYPHILIS, [illegible] ONDARY.

T. B.; age, 53 years; nativity, Norway; admitted to the United States [illegible] Hospital, Stapleton, Staten Island, August 3, 1900; died August 3, 1900.

Past history. Has been coughing for many years, quite susceptible [illegible] and recovers with difficulty. Had chancre and bubo twelve years ago.

Present history. Has been exposed to fatigue and hunger for last two [illegible] Was taken suddenly with difficulty in breathing, gradually became worse.

Physical examination. Thorax, auscultation: Tubular breathing ove[illegible] lungs, upper part, mucous râles over sternum, breath sounds diminishe[illegible] base of lungs. Inspiratory murmur stridulous and expiratory murmur har[illegible] prolonged. Heart negative. Throat: Mucous membrane highly inflamed [illegible] ulcer on left palatine fold and smaller ones surrounding it; large ulcer o[illegible] terior wall of larynx. Genitals: Old scar on penis, inguinal glands enl[illegible] skin covered by a rose-red macular eruption varying in size from a split [illegible] patches the size of a dollar, are elevated, irregularly rounded, and on all p[illegible] except feet, hands, and face; color diminished on pressure and quickly reg[illegible] They do not itch nor burn, not painful; appeared first on arms and shoulder[illegible] spread over body; eruption appeared on same day as respiratory difficulty. S[illegible] examination. Negative to tubercle bacilli, thin, mucoid, and horribly feti[illegible] suddenly 9:2[illegible] p. m.

Necropsy (twenty-four hours after death). Body white male, well developed; [illegible] parts pale, lower congested; rigor mortis marked. Epiglottis thickene[illegible] ulcerated, mucous membrane of larynx œdematous, false cords infiltrated. The trunk and limbs present an extensive papulo-squamous eruption consis[illegible] slightly elevated areas from 0.40 cm. to 2.50 cm. in diameter when isolate[illegible] coalescing principally on the trunks to form patches, dusky red on dependen[illegible] tions, they shade to a pale coppersh hue on the upper surfaces. These sp[illegible] covered with nonimbricated grayish scales, separated by areas of solid [illegible] Rigor mortis marked. Subcutaneous fat scant. Muscles well developed. [illegible] Right bound down by old pleuritic adhesions, no fluid in pleural cavity [illegible] emphysematous and congested, weight, 1,000 grams. Left lung same; w[illegible] 775 grams. Pericardium nonadherent, sac contained 500 c. c. pale fluid. [illegible]

SYPHILIS, SECONDARY.

Stricture of œsophagus.

R. P.: age, 55 years; nativity, England; was admitted to the United Stat Marine Hospital, port of San Francisco, Cal., February 4, and died May 26, 19

History.—Three months prior to admittance difficulty in swallowing becan evident. There was no pain, but patient continued to get worse, until at time admission almost everything he endeavored to swallow was regurgitated. (passing the œsophageal sound two strictures were found, one 21 cm. and the oth 41 cm. from the upper teeth. The passage of the sound was always followed l some bleeding. While in the hospital patient lost considerable weight; was ve weak; had small and rapid pulse, and a marked and increasing cachexia. Cou was distressing. Shortly before death occurred patient was markedly dyspnœi Stimulation was used, but patient did not rally. Loud, bubbling râles could no be heard over entire chest. Death occurred at 8.15 p. m., from exhaustion follo ing inanition due to stricture of œsophagus. Treatment was principally lar doses of iodide of potash with stimulants and abundant food.

Necropsy (seventeen hours after death).—The body is that of an elderly whi male, poorly developed and much emaciated. Post-mortem rigidity well marke Suggillations are fairly well marked. Encephalon normal. Brain weighs 1.4 grams and is slightly congested. Lungs: Both adherent to diaphragm; covered l a deposit of lymph; œdematous; float in water and crepitant throughout. Le lung also somewhat adherent at apex; weight, left 530 grams, right 820 gram On section a purulent fluid oozes from the smaller bronchi and bronchiole Pericardium contains about 25 c. c. of yellowish fluid. Heart: Weight 270 gram small, pale, and flabby. Coronary arteries are hard and tortuous. Mitral ar tricuspid valves shrunken and insufficient. Aortic and pulmonary valves are no mal. Large vessels have some fibroid changes near their beginning; the walls the aorta are calcareous near the heart, and the descending aorta, at about t level of the fifth to seventh dorsal vertebra, is indented by pressure of an abn mal growth in œsophagus. Œsophagus: At about the level of the fourth dors vertebra and extending to about the first lumbar vertebra there is a large ma infiltrating the walls of the œsophagus. It surrounds the bifurcation of the tr chea and presses on the bronchi as well as on the descending aorta posteriorl Below, the mass is adherent to the stomach. On section, the mass presented t appearance of being in a state of cheesy degeneration. Spleen, normal; weig 130 grams. Liver: Weight 1,500 grams; edges rounded; color normal. On se tion, the cut surface presents the typical appearance of the "nutmeg" live namely, a secondary fatty degeneration around the congested veins, evidencing secondary cirrhosis of the liver. Kidneys: Right kidney weighs 310 grams; ca sule strips readily; somewhat irregular; markings indefinite; presents signs cyanotic induration. Left kidney presented no marked differences from the rig kidney. Other organs normal.

L. S. S.
C. W. V.
J. M. G.

Pyelitis—Mycelitis, chronic inflammation of bladder (chronic suppuration). Abscess of kidney (pyonephrosis).

S. A. S.: age, 55 years; nativity, Pennsylvania; admitted to the United Stat Marine Hospital, San Francisco, Cal., February 1; died February 18, 1901.

History—Family history negative. Had malaria four years previously. Hi a chancre twelve years ago, followed by secondaries. Present illness began tw years previous to admission, with incontinence of urine. He passed a great de of urine, containing a large amount of mucus and pus and had used a cathet for two years. Occasionally he passed blood. Had chills at intervals of two three days for the past year. For a week previous to entering hospital had inc herent spells, during which he had no knowledge of what he was doing. Thir excessive. Bowels very loose and incontinent. Had occasional severe headache Upon examination his lungs and heart were found normal, excepting rapid actio of heart. Mental condition rather unstable and confused. Memory very poo He had a somewhat spastic gait. Patellar reflexes were greatly exaggerated; mu cular sense normal; tactile, temperature, and pain sense subnormal along distr bution of left internal saphenous nerve. Urine showed pus in large quantities, bu no casts. Temperature was subnormal from time he entered hospital till deat

by the cachexia and the signs of an affection of the chest and of pressure on the bronchi increased, and latterly signs of pressure on the gullet appeared. There were loud mucous râles in the lungs, but no physical signs in the chest of a tumor of any size.

Necropsy (twenty-two hours after death).—Rigor mortis. Post-mortem lividity in dependent parts. Marked emaciation, but not the most extreme. Operation scar on right side of neck following line of sterno-mastoid muscle and extending across clavicle. Nodules in skin in center of scar and at lower extremity. Serous liquid mixed with bright-colored blood escaped from the meninges of the brain when the skullcap was removed. The blood vessels showed very clearly, the arterial radicals being bright red and the veins dark. There were bright-red patches in the pia mater, caused by fullness of the terminal arteries and capillaries, the most conspicuous one being in the right parietal region. Pus escaped from the chest when the fourth costal cartilage on the right side was cut. A small abscess was found in the anterior mediastinum on this side, central in the sixth interspace at the junction of cartilages and ribs. A chain of enlarged lymph glands was found in the chest reaching down from the right side of the neck. A number of small, pale, gristly nodules were found scattered beneath the skin in the region of the neck where the tumor had been removed by operation. There was a whitish, fibrous, and fatty patch in the pericardium on the front of the heart. The cavities of the heart were filled with dark clotted blood and with smaller buff clots. The auriculo-ventricular orifices admitted two fingers. The aortic and pulmonary valves held water. The aorta seemed dilated in the arch and measured 10 cm. in circumference, but was not atheromatous. The pulmonary artery was also large. The heart weighed 300 grams. Numerous enlarged, dark-colored lymph glands were clustered around the bifurcation of the trachea and the roots of the lungs. Purulent and bloody liquid filled the trachea and bronchi, but no erosion of the tubes could be found. The left lung was adherent in the lower part of the pleural cavity, and there were recent fibrinous deposits on the pleura. There was an abscess about 3 cm. in diameter in the lower border of the lower lobe. The whole lobe was in a state of red hepatization. The upper lobe crepitated slightly, pitted on pressure externally, and exuded frothy serum from the cut surface. The lung weighed 1,300 grams. The right lung was adherent about the upper lobe. The whole lung showed the impress of the ribs. The abscess noted above as found in the mediastinum had eaten deeply into the lower border of the lung, and several smaller abscesses were found in the neighboring lung tissue. The lower part of the lower lobe was solidified and friable, the upper part crepitated. The middle lobe was in gray hepatization. The upper lobe was full of blood but crepitated. The lung weighed 1,100 grams. The œsophagus was not actually obstructed, though pressed upon by enlarged lymph glands. Fat was scanty in the omentum. The spleen weighed 150 grams. The suprarenal bodies were very soft and were ruptured in removing. The left kidney weighed 150 grams. The capsule stripped moderately easily. The cortex was very narrow, the tissue pale. The pelvis of the right kidney was somewhat distended with urine, which had evidently backed up from the distended bladder, since the ureter was not obstructed. The kidney weighed 170 grams. The tissue was deep red and the cortex was thicker than in the left kidney. The bladder was greatly distended with urine. The gall duct contained bile; no gallstones. The bile ducts were patent. The liver weighed 1,700 grams and had no unusual appearances either externally or internally. The pancreas weighed 70 grams. The stomach contained a little liquid but was shrunken, and likewise the intestines. The appendix was slender and curled under the cæcum.

A. C. S.
G. W. S.

ADENO-CYSTO-SARCOMA OF JAW.

E. K.; age, 40; born in Connecticut; admitted to the United States Marine Hospital, Boston, Mass., December 26, 1899; died August 18, 1900.

History.—When admitted to this hospital an examination was made which revealed a tumor about the size of a hen's egg situated midway between the symphysis menti and angle of lower jaw and just below it on the right side. A diagnosis of inflammation of the lymphatic glands was made, and patient was put on potassium iodide. On January 1, 1900, an incision was made for the purpose of removing this tumor, but it was found so closely connected with the main blood vessels and nerve trunks that an operation was deemed impossible. On April 5, 1900, patient deserted. He was again admitted to this hospital on July 12, 1900. On examination it was found that this tumor had increased in size and was very

part [illegible] that the diagnosis of adeno[illegible] was made.

[illegible] External appearance: Patient very [illegible] rigidity marked. Pupils equally [illegible] extending from the angle of the lower jaw to [illegible] from the ala of the nose to [illegible] as far as the clavicle was a large, hard [illegible] and ulcerated. Inter[illegible] On section of [illegible] stained a clear white fluid. The [illegible] character and not very vas[illegible] axilla of that side. Circula[illegible] The valves were [illegible] of a pale straw [illegible] Respiratory tract: The nose and larynx [illegible] due [illegible] The right [illegible] weighed [illegible] large intestines [illegible] enlarged. The liver was [illegible] The [illegible] normal and [illegible]

F. I.

[illegible] OF INTESTINES AND LIVER.

[illegible] U. S. Marine Hospital, [illegible] Patient was transferred [illegible]

[illegible] He began [illegible] He became weak [illegible] weight [illegible] and [illegible]

[illegible] Heart sounds [illegible] markedly [illegible] Patient has a very [illegible] pain in the [illegible]

[illegible] Bowels [illegible]

[illegible] stopped

off. On section kidney shows congestion. Bladder is contracted, contains sc amount of amber-colored urine. Stomach is large, partially filled with flu Pyloric orifice partly closed by a hard growth. Duodenum bound down to abdo inal wall by a hard growth which extended around the duodenum and alm obliterated its lumen. Small intestines contained hard fecal masses. At pla the intestine is constricted by growth and lumen almost occluded. On the rig side the appendix and cæcum are firmly bound down to the iliac fossa. The lar intestine contains hard fecal masses. Over the surface of the liver are yellowis white areas varying in size from a kernal of wheat to a silver quarter. Th areas are hard and resistant on section and are found throughout the entire liv Gall bladder is distended and filled with golden-brown fluid. The pancreas is gr ular on section and firmly united to the growth in the duodenum. Mesentery contracted along its entire attachment to the intestine and contains an infilt ting mass, hard and nodular. In places it is diffuse, and in other areas it for an irregular hard cord about half an inch in diameter. The microscopical exa ination of the tumor showed a scirrhus carcinoma made up of a mass of de fibrous tissue containing spaces in which were cancer cells. The liver show atrophy of the cells and an increase of Glisson's capsule. The liver cells contai a brownish-yellow pigment from broken-down blood. Throughout the liver th were carcinomatous areas. The microscopical examination of the pancreas show no pathological changes.

W. J. P
A. D. F.
J. S. M

COLUMNAR CARCINOMA OF STOMACH—SECONDARY INVASION (LIVER AND OMENTAL GLANDS.

Clinical history.—W. Y., age, 55; white; born in Texas; was admitted Ap 26, 1901, to the United States marine ward in St. Mary's Infirmary, port of G veston, with the following history: He states that he has been fairly healthy one month ago, when he fell and hurt his face. This got well, and nothing furt troubled him except an attack of piles, which bled for one day and then d appeared. For three weeks, while he has had no pain, he has noticed that abdomen has been gradually getting larger, and there has been a swelling an solid feeling about the upper part of his belly for some time. He is habitua constipated, and for two weeks his ankles have been swollen, otherwise he noted nothing abnormal. He has had no epigastric pain, nausea, or vomiti On examination patient is emaciated, and his ankles are slightly œdemato His chest shows nothing abnormal. His abdominal wall is prominent, the ski glazed, stretched, and shining; the umbilicus is protruding. Especially in epigastric region over the hepatic area is there a rounded tumor visible, whi is dull on percussion and fluctuates. A dull note in the hypogastrium (pati sitting up) points to fluid in the abdomen. His urine contains neither album nor casts, but is scanty. A needle introduced into the prominent epigastric swe ing withdrew a little dark straw-colored fluid, and the liver could be felt a hard, very resistant body extending down almost to the umbilicus.

On April 29, under ether anæsthesia, an incision in the middle line above umbilicus allowed a large amount of ascitic fluid to escape, after which there revealed a much enlarged liver, finely granular on the surface, suggesting "hobnailed liver," with several large nodules apparently cancerous; the stoma had a large mass along its greater curvature, and many cancer nodules w found in the greater omentum. The incision was closed. He died next d (April 30) at 7 a. m.

Necropsy (seven hours after death).—(Copy of report by Dr. Allen J. Smith, p fessor of pathology, University of Texas.) The body at necropsy was that of emaciated white man, apparently 60 years of age, 5 feet 2 inches in height, poo nourished, and weighing probably 135 pounds. No abnormalities of structure deformities evident. No scars or marks upon the surface except a recent surgi incision above the umbilicus in the median line, done in exploratory operati Slight icterus, best seen over the abdominal wall; hair of head thin, gray; be full, gray. Muscles in abdominal incision normal in appearance, but thin; po mortem rigidity slightly present, probably having disappeared. Panniculus a posus very slight; a little œdema about right ankle. Body heat disappeared, signs of decomposition. Head, etc., not examined. Thorax: Thoracic organs normal position. No abnormality in diaphragm or mediastinum. Pleuræ: T right pleural cavity contained 192 c. c. of clear straw-colored fluid; there are a f old, firm, adhesive bands in the axillary line at the level of the second and th

[illegible] the normal mucous surface. Cardiac [illegible]

[illegible] The principal seat of secondary formation is [illegible] there are enlarged glands and nodules along the [illegible] left and directly along the course of the gastro-[illegible] artery, forming a chain of secondary deposits under the [illegible] in the neighborhood of the cardiac axis. Another follows the course of the right gastro-epiploic artery and gastro-duodenal artery, accompanied by glands and nodules welded together by adhesions being in the neighborhood of the common biliary duct, not envolving the wall of the duodenum, however. In the mass the head of the pancreas is united with one nodule about 2 cm. in diameter and several smaller ones involving it. All along the body of the pancreas are nodules in the course of the splenic artery. There is a gland of the external iliac group of the right side lying just under the peritoneum below Poupart's ligament, which is enlarged, and a section has the appearance of cancerous involvement. The thoracic duct in its course does not show involvement. The diaphragm and lungs are free and no other distant focus save the mass gland just mentioned presents invasion. The secondary formations are pale, slightly yellowish in color, soft, and in many instances when cut appear to be fatty degenerated in the interior, sometimes pultaceous, always freely packed with cancer juice. Small intestine normal throughout. Appendix normal, 5 cm. long, 0.4 cm. thick, lies back of the cæcum, its free and coiling end toward the median line and curving over the edge of the pelvis. Large intestine normal. Intestinal contents washed through a strainer of cheese cloth failed to show any parasite or any gross abnormality. Liver: The liver, gall bladder, and surrounding cancerous glands, together with the adherent pancreas (not separated because specimen reserved for museum), weigh together 3,040 grams. The liver measures transversely, 26 cm.; anteriorly or posteriorly, 20 cm.; perpendicularly, 12 cm. The surface of the left lobe is deeply congested, the seat of numerous subcapsular hemorrhages. This surface has lost its glossiness, as, too, the under surface of the enlarged left lobe, and the whole surface is beset with minute nodules as from cirrhosis; here and there all over the surface and throughout the substance, as shown on section, are yellowish-white nodules, the longest reaching [illegible] cm. or more in diameter, encapsulated and rounded, of secondary cancer. Numerous whitish points in the section suggest miliary invasion, and whitish streaks show in the cut surface which are probably strands of sclerosed perilobular tissue, or perhaps lines of lymphatic extension of cancer. The uninvolved portions of the liver are slightly stained with biliary pigment and nutmeg in appearance from fatty infiltration.

Gall bladder filled with liquid bile, and contains half a dozen small, irregular calculi; wall normal. Pancreas measures 14 cm. in length; is the seat of a node of secondary cancer, about the size of an average pecan nut (oval shaped) in the head, and along the superior border in the vicinity of the splenic artery are a dozen or more enlarged, hard lymph glands. The substance of the gland presents no gross alterations other than the above. Mesentery apparently normal but mesenteric gland can be felt distinctly as minute (enlarged) bodies (size about 0.5 cm. by 0.3 cm. by 0.2 cm.), firmer than normal.

BITS PRESERVED FOR MICROSCOPIC EXAMINATION.

1. Wall of left ventricle of heart in state of atrophy, the interstitial connective tissue decidedly increased; muscle fibers much pigmented; moderate fragmentation of fibers; many fibers athropic; Meigs's intermuscular capillaries well marked. Blood vessel walls thickened, moderate infiltration of epicardium.

2. Papillary muscle or left ventricle similar to above.

3. Wall of right ventricle similar to wall of left ventricle, intermuscular connective tissue, as usual, more marked than in left ventricular wall.

4, 5. Bits of superior lobes of right and left lungs. Both lungs show in the arterioles and in the capillaries in the walls of the air spaces numerous plugs of secondary cancer of same type as seen in liver. No clear lymphatic involvement. In a few spots bordering on these minute foci of cancer the air spaces are occupied by pneumonic exudate. Moderate pigmentation; otherwise normal. Section of spleen, marked congestion. Trabeculæ and vessel walls thickened. Moderate pigmentation.

7. Section of kidneys: Slight thickening of vascular walls, irregular congestion of individual vessels, especially vasarecta. Slight intertubular connective tissue hyperplasia. Scattered, cloudy swelling in cells of cortical tubules. Ureters normal.

wound; anodynes to mitigate his sufferings, and chloral, bromides and hy hydrobromate to control the delirium.

Necropsy (*nine hours after death*).—Body that of a well-developed mu white male. Head, face, and neck extremely swollen, with blebs in place lids œdematous, eyes colored as a result of the erysipelatous inflammation, di ing features almost beyond recognition. Depression in forehead over fronta about 5 cm. in length, 2 cm. in depth, 1 cm. in breadth, resulting from a fracture of the skull. A recent injury over right eye caused by fall. A lac wound of scalp, 2½ cm. in length, caused by fall or blow, located ove of occipital bone, about 3 cm. to right of median line between the su and inferior curved lines. Bone exposed, but not fractured; pus exuded wound. The scalp is boggy and œdematous, discharging from several pl sero-purulent matter. Right knee has recent wound from fall, about 1 c diameter. A cicatrix over left thigh. Posterior aspect of body discolored from ecchymosis. Rigor mortis marked. From incised tissue of neck and over the manubrium a bloody sero-purulent discharge flowed freely upon pression. Tissues soft and infiltrated. Thorax: Pericardium thickened inflamed, and contains about 200 c.c. of serous fluid. Heart small and c with fat, large ante-mortem clot filling right side of heart and extending into pulmonary artery. Aorta slightly thickened. Hydraulic test demons competency of aortic and pulmonary valves; mitral and tricuspid valves a ently normal; weight of heart, 300 grams. Right lung weighs 800 gram 500 grams; right œdemateous; a frothy material exudes from incised su glottis œdematous. The erysipelatous inflammation had extended into the l and trachea, where mucous membrane presented the characteristic appeara an intense inflammation. The surrounding tissues were invaded by the sion and present similar gross lesions to those already described. Abd Liver weighs 1,900 grams; upon section bleeds easily; substance, friable; normal; gall bladder distended with bile; ducts patent. Right kidney con and weighs 150 grams. Left kidney congested and weighs 175 grams. S normal; weight, 125 grams. Urinary bladder contains about 300 c. c. of Intestines distended with gas. Calvarium removed with difficulty, owing great thickening of the bones, which exceeded that of the African skull. cap somewhat oblong in shape and flattened on top. The vessels of arachno pia mater were engorged and red. The two membranes were closely adher places. The membranes were evidently in the first stages of an inflamm Weight of brain, 1,250 grams.

J. T.
W. P.

MULTIPLE FRACTURE OF THE SKULL AT ITS BASE.

W. L.; seaman; age, 22 years; native of Canada; was admitted into the n division of the Buffalo Hospital of the Sisters of Charity on May 10, 1901.

History.—Patient could give no account of the injury which he had susta save that he had fallen and struck upon his head. It was afterwards learne he had fallen into the hold of the steamer *John W. Moore* and when pick was unconscious.

Present status.—He is semiconscious; the pupils equal and react to light; 80 and of good quality; no loss of sensation or motion. There is bleeding left ear, a large contusion of left occiput, and a bruised area along the lower c region. This condition was quickly followed by loss of consciousness, dila of pupils, paralysis of the muscles of deglutition, stertorous breathing, som vulsive tremor of both hands, and death three hours after the injury. Ther at no time the possibility of rendering surgical assistance.

Necropsy.—Body of young adult male in full health; rigor mortis commen There is a contusion of the scalp covering the left side of the occipital bon the superior curved line; there is a flow of bloody serum from the left ea over the lower dorsal region there is an oval tumefaction 16 cm. long. Calv removed; scalp tissues infiltrated with blood at side of contusion; meninge gested; brain normal in appearance. In the fossæ of the base of the skull are several fractures. In the left middle fossa there is a Y-shaped fracture commencing in the parietal bone near the squamous juncture, crossing this s and extending forward and downward, and backward and downward th the squamous portion of the temporal bone, the anterior line in its course w ing the anterior branch of the middle meningeal artery, the posterior line ing the petrous portion of the temporal bone, involving the vessels of the n

[illegible] bleeding and loss of [illegible] a fracture [illegible] forward to near the [illegible] lateral sinus. There were two fracture lines [illegible] lateral sinus. Also [illegible] there is a fracture [illegible] crossing and lacerating the [illegible] middle meningeal artery. There is extravasated [illegible] calvarium was raised [illegible] dura mater [illegible] over the second and third frontal convolutions [illegible] movements of the hands. Other organs normal.

E. W.

THROMBOSIS OF RIGHT MIDDLE CEREBRAL ARTERY

[illegible]

and Thursday morning, while cleaning decks, he fell, and when found was u scious." On Saturday the patient was brought to hospital, and at that time practically unconscious, although he could be partially aroused by a loud v Physical examination showed the left arm and left leg lying perfectly limp, when raised and released falling with complete relaxation. On the right sid muscles of the face were drawn and the right corner of the mouth was elev Conjugate deviation of the eyes and head to the right side. The pupils sh no irregularity. The breathing was stertorous and the pulse slow. There no control over the sphincter muscles. Later the facial paralysis began to imp and the mental condition cleared to such an extent that the patient could with a moderate degree of intelligence. Control over the sphincters was rega There developed, however, a chronic contraction of the muscles of the lef and arm; much more marked in the latter, in which the elbow was some flexed and the wrist and fingers extremely so. Three times during the pati stay in the hospital a convulsion, epileptiform in character, developed. The two were neither severe nor of long duration, and the intellect, although d for a day or two, then regained its normal, or usual, condition. On the after of February 10 the last and most severe convulsion developed, continuin nearly an hour, the patient passing from this condition into a comatose stat dying about 2 o'clock the following morning.

Necropsy (twelve hours after death).—Height, 5 feet 6 inches. Post-mo lividity well marked. Rigor mortis moderate. Pupils dilated. General nou ment poor. Circulatory organs: Heart—Unusual development of muscle f All valves were competent; weight, 490 grams. Pericardial sac normal. Art exhibited slight sclerotic changes. Lungs: Weight of right lung, 470 gram left, 370 grams. Both presented a fairly well marked hypostatic congestion. left pleural cavity was normal; the right showed slight pleuritic adhesio various places. Gastro-intestinal tract normal, with the exception of an elong and adherent appendix. Liver: Weight, 1,250 grams; somewhat conge Spleen and pancreas normal, except for a well-marked sulcus running transve across the outer surface of the spleen. Kidneys: Each weighed 110 grams, a both the capsule was adherent, the cortex thin, and the pyramids unusually dish and mottled. The urinary bladder and ureters were normal. Nervous tem: The dura mater was decidedly congested and somewhat adherent along sides of the longitudinal fissure. Brain: Weight, 1,500 grams; cortical pa injected. On section the right hemisphere exhibited a reddish-brown p involving the lenticular nucleus and internal capsule, in which there had a ently been a proliferation of connective tissue and resulting scar formation. was considered to be the position of the hemorrhage, taking place befor patient was admitted to hospital. The left lateral ventricle was filled to its ut capacity with recently effused dark-red blood.

W. C.
B. W.

MENINGITIS.

F. W.; age, 52; nativity, United States; admitted to United States Marine pital, Baltimore, Md., March 4, 1901; died March 7, 1901.

History.—Upon admission to hospital the patient's mental condition was that no history could be obtained. It was learned, however, from the capta the vessel upon which he had been employed that the illness had lasted about weeks, all of which time the patient had been aboard of the ship. Physical e ination showed the patient to be in very shaky condition—the face dull, conj tivæ injected, tongue tremulous and red at tip, covered posteriorly with wh coat. Abdomen tympanitic and tender to touch. Slight subsultus tendi Axillary temperature, 39 C. Pulse, 102 and very weak. Respiration, 26, with s bronchial breathing over a small area in posterior portion of left lung. The after admission the pulse was weaker, the breathing more irregular, and mental condition that of muttering delirium. March 6, the condition rem the same. There was an involuntary movement of the bowels, which was thin, offensive, and slightly yellowish character. At 12 o'clock on March pulse could not be felt at the wrist, but patient responded to strong stir tion; the rally, however, was of short duration, and death occurred at 1 o' that night. On admission to hospital a rose-colored rash was observed on a abdomen, and thighs. Did not disappear on pressure. Some spots were pete and some very small ones hemorrhagic.

Necropsy (eight hours after death).—Height, 5 feet 10 inches. General nou ment good. Pupils dilated. Rigor mortis marked. Post-mortem lividity ma

[illegible]

[illegible]

[illegible]

[illegible]

hot milk were injected per rectum every three hours for the first two days, when it was given by stomach tube. Within sixty hours the patient's mentality cleared sufficiently to reply to questions intelligently by nodding or shaking his head, though speechless through incoordination of muscles. Complained of headache in frontal region extending over vertex; earache in left ear; read large print, and swallowed fluids, though with difficulty. The ear was again examined with negative results, and frequent copious irrigations with warm boric acid, 2 per cent solution, begun, with hot-water bag applied, which seemed to give much comfort. This was discontinued on March 19, and two drops of warm olive oil and tincture of opium used instead; chloroform liniment was well rubbed on paralyzed limbs. Urine throughout normal.

The left bronchial momoplegia without loss of sensation, and paralysis of left leg and thigh, which became apparent on recovery of consciousness, lessened perceptibly. The excretory functions were almost reestablished and the patient was apparently improving, although still unable to speak. On March 21 the symptoms gradually increased in severity, and in the evening the entire left side became paralyzed. Preparation was made for operation to be had as soon as the light was sufficient, but the patient died quietly at 5.45 a. m. May 22, 1901. The temperature chart shows nothing of interest.

Necropsy (five hours after death).—Body that of an adult white male; 1.7 meters in height; weight, 70 kilos; muscular and fairly well nourished. Rigor mortis in lower extremities, but not in upper. Post-mortem lividity faint. Subcutaneous areolar tissue apparently normal. Anterior mediastinum and organs of chest and abdomen apparently normal. Bladder: Contains about 600 c. c. urine, no pathological lesions. Brain: Entire cortex of left hemisphere is covered by a clot of blood, partially organized and subdural. A portion of the clot anteriorly and 3.5 cm. in diameter is apparently some days old, while the posterior one is larger and of recent origin. The posterior clot is formed by a rupture of the ascending parietal branch of the middle cerebral artery. The anterior hemorrhage is undoubtedly due to the rupture of a branch of that artery, but this is undemonstrable. There is no evidence whatever of injury to the skull, and the cause of the hemorrhage is difficult to ascertain. This case is of special interest in the fact that the symptoms pointed so strongly to the lesion as being on the right side, when the hemorrhage was on the left.

A. M. M.
M. J. W.
J. M. G.

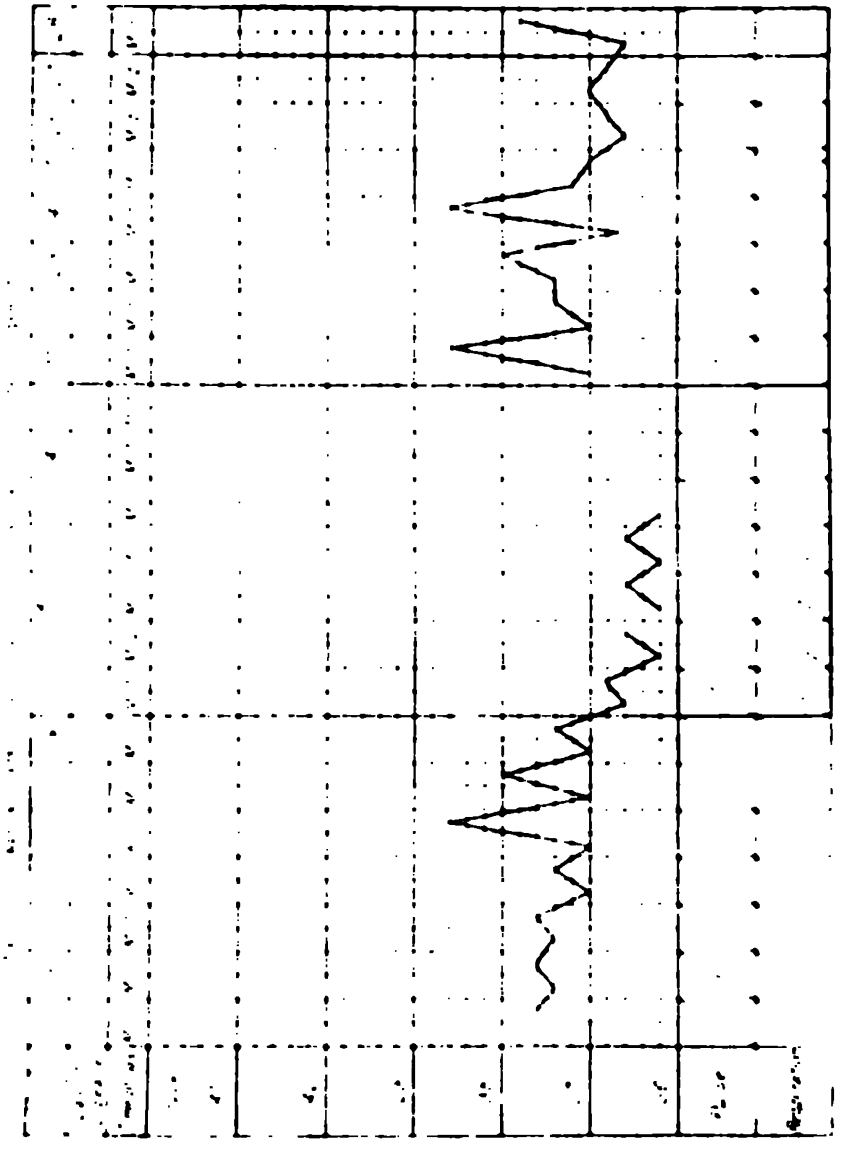
DEGENERATION SPINAL CORD.

Anterior column.

J. J.; age, 43 years; nativity, Denmark; was admitted to the United States Marine Hospital, port of San Francisco, Cal., on July 13, 1897, and died June 1, 1901.

History.—Up to two years previous to admission was a healthy, vigorous man. No venereal history. Applied for relief from dyspepsia and rheumatism in arms. Two years before admission had chills and fever, to which he ascribed his illness. At that time had a numbness and slight pain in small of back. Almost immediately afterwards there arose a gradually increasing weakness of the lower extremities. This increased until he entered the hospital. At that time he was able to walk with aid of crutches, but within four months he lost the power to walk entirely. His bowels became constipated and his urine dribbled. His lungs were normal; heart normal, except a slight accentuation of second aortic sound. There was a marked paresis of lower extremities, but no atrophy of the muscles. No areas of anesthesia either of temperature or touch. Anidrosis over both legs was complete. The knee jerks markedly exaggerated. Ankle and rectus clonus present. Romberg's sign was present. Over the third and fourth lumbar vertebræ a scar, result of an injury at age of 17 years. No disability resulted at the time. Patient continued to lose power of legs and also to have incontinence of urine and constant and obstinate constipation. On March 22, 1898, a lachrymal abscess developed, which disappeared in a few days after passage of Bowman's probe and irrigation of canal with boric acid solution. Patient's legs continued weaker, and strychnine was administered hypodermatically with massage and the faradic current. He complained of continual headaches and frequent micturition, especially at night.

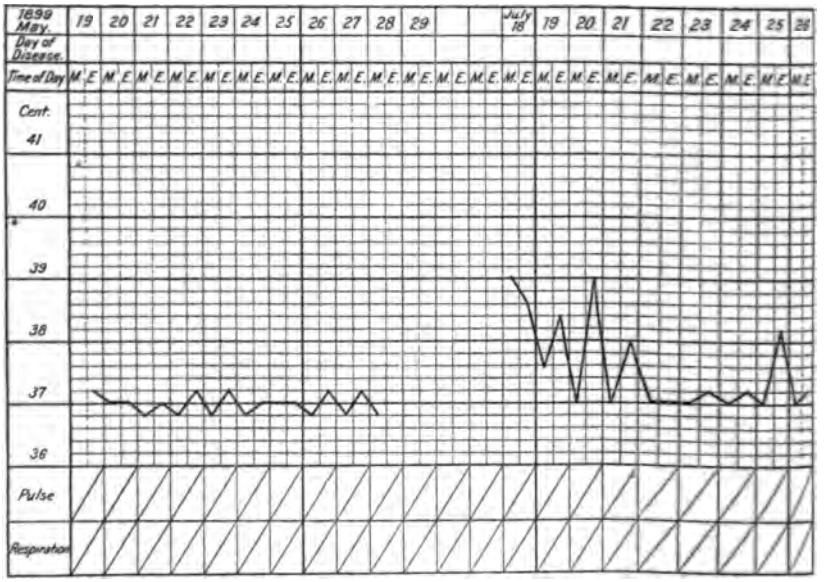
May 19, 1899.—Urine examination showed pus. Number of micturitions increasing. Constipation was still continuous, bowels moving only when stimulated by drugs or enemata.

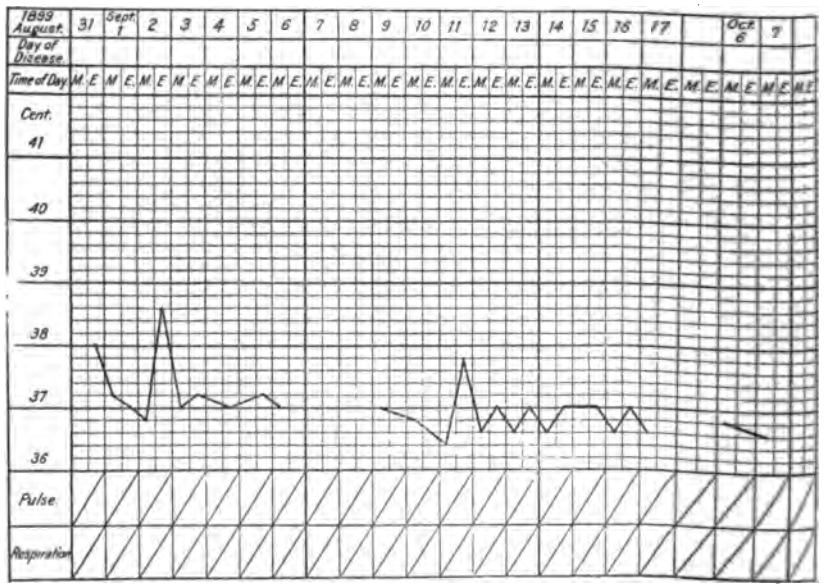


February 24, 1900.—Complains of tremors and pain in legs and arms at night. Testicle became large and tender. Scrotum thick and œdematous.

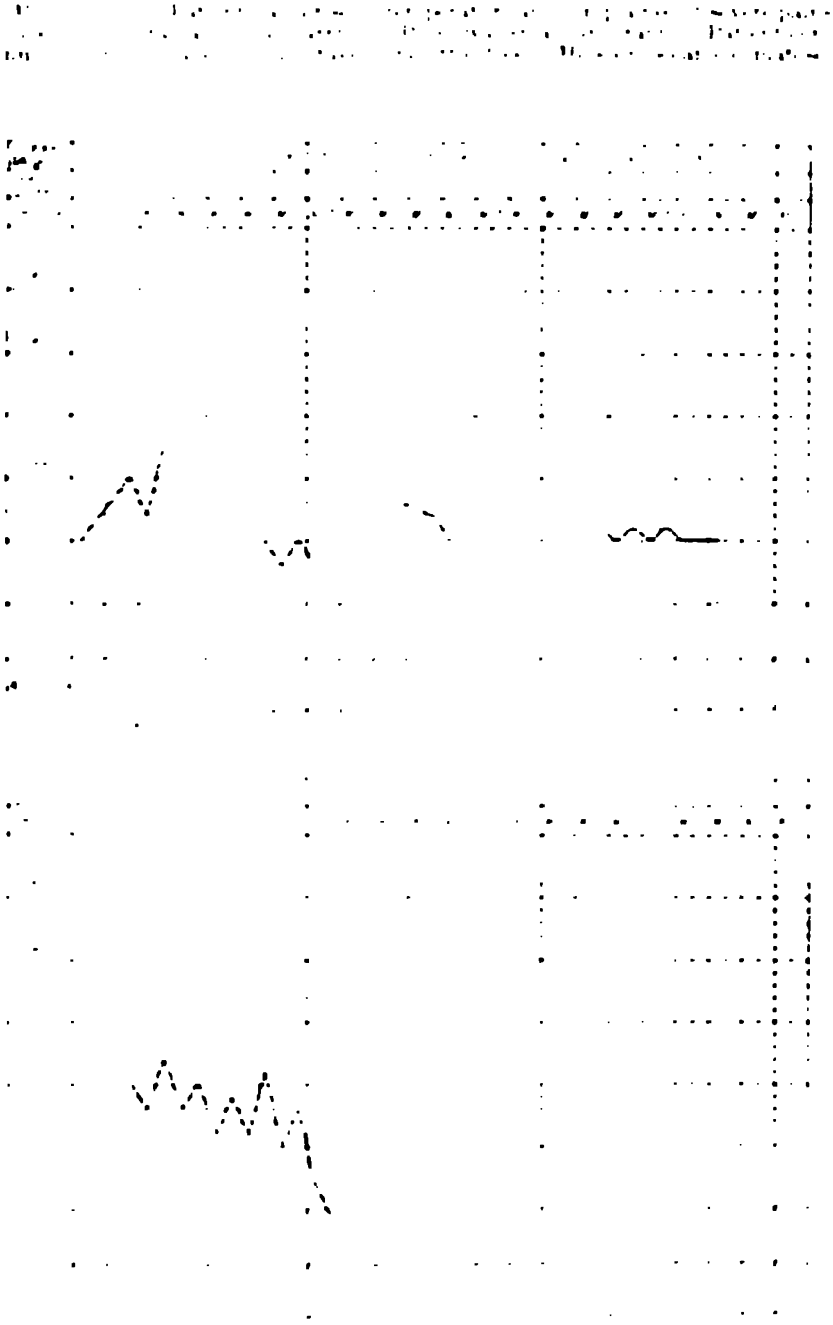
March 16, 1900.—A perineal fistula was found, through which most of the urine escaped. Urine very offensive. Patient continued in this condition until March

U. S. Marine Hospital, port of San Francisco, Cal.
Name, J. J.; age, 43 years; disease, degeneration of spinal cord, lateral and posterior columns.





18, 1901; at times he would have an increase in the intensity of his symptoms. Constipation alternated with diarrhea of a bloody nature. The fistula in perineum [illegible]ined, at times discharging a purulent fluid. An ischio-rectal fistula was also [illegible]d. Patient at times suffered from headaches, nausea, and vomiting.



Necropsy (thirty hours after death).—Height, 1.73 meters; weight, 75 kilos. Bo is that of a well-nourished white adult male. Rigor mortis well marked. Suggil tions fairly well marked all over the body. Brain: Weight, 1,400 grams; slight congested; otherwise normal. Spinal cord: Dura and cord normal in gross appe ance. Pericardium normal. Heart: Weight, 390 grams. Aortic and pulm valves normal in appearance. Heart muscle apparently normal. Lungs: Le weight, 530 grams; crepitates, floats in water; apparently normal; right, weig 760 grams; adherent to pleura and diaphragm; floats in water, crepitates; app ently normal otherwise. Liver: Weight, 2,040 grams; normal in appeara Spleen: Weight, 340 grams; normal in appearance. Left kidney: Weight, grams; capsule strips; on section a quantity of purulent fluid found in the pe and ureter; pelvis very much dilated; cortex diminished, a small, circumscri abscess cavity found in the cortex; markings distinct. Right kidney: Weig 185 grams; cortex thinned; pelvis somewhat dilated; markings distinct. Bladd Walls extremely hypertrophied; about 2 cm. thick; cavity very much lessen capacity reduced to about 50 c. c.; contains a purulent fluid; inside of bladd shows openings of a number of fistulæ; one opening into the rectum.

L. S. S.
C. W. V
J. M. G.

GAMMATOUS TUMOR OF THE BRAIN.

J. J.; admitted to the United States Marine Hospital, Stapleton, Staten Is September 18, 1900; age, 37; nativity, Norway; last employed on schooner *Ge D. Chambers;* died May 19, 1901.

History.—The patient entered the hospital formerly March 2, 1900, a remained under treatment at that time until September 17, 1900, the diagno being syphilis. His most conspicuous symptom at the first was intense headach principally on the right side, but shifting, and occasionally entirely absent fo day or so. He also had pains in the feet and legs. Gait was ataxic. Pup reacted to light and accommodation, but the right was narrower than the le The patellar reflexes were absent. There was no evidence of anesthesia anywhe There were no clear external signs of syphilis. He gave a history of having h venereal disease about fifteen years previously. Treatment had no percept effect in checking the slow progress of the disease, which was characterized b loss of nervous power, in the mental and motor systems particularly. Vis failed also, and the complaints of pain in head and feet were more or less consta The patient was absent only one day from the hospital, when discharged in S tember. His condition progressed steadily, until at the last he was complete helpless, demented, and blind. The symptoms by which a tumor of the bra could have been diagnosed and its position definitely located were never clear, a there was much cause for believing that the ataxic symptoms were due to a affection of the spinal cord. The patient died in coma, having had a number similar spells previously, which lasted only briefly.

Necropsy (six hours after death).—Body well nourished and muscular. Po mortem lividity and rigidity of dependent parts moderately developed. Pupil moderately and evenly dilated. Right little finger missing. Two small ulce over internal malleolus, extending deeply into the skin. Epidermis of right he loosened, showing red derma beneath. Skullcap thin. Meningeal vessels full dark, fluid blood. Superficial vessels of brain contained dark, fluid blood. tumor was found in the brain case above the tentorium cerebelli, compressing th cerebellum and pons and the occipital lobes of the brain. The left occipital lob was greatly thinned, the surface markings and gray cortex being obliterated o the median surface. The right lobe was compressed to a less extent. The tum lay about two-thirds to the left and one-third to the right of the median line. weighed 320 grams and was nearly the size of the closed fist. It was firm adherent to the dura, but not to the brain tissue. Its consistence was firm a the surface nodular. The bone over the tumor was eroded and so thin as to b translucent. The great longitudinal sinus was obliterated completely where i passed over the tumor. The cut surface of the tumor appeared fibrous and h an arborescent arrangement; it cut with difficulty. A specimen about 15 cm long of the spinal cord presented no positive gross lesions. On opening abdom subcutaneous fat was found in good quantity. The skeletal muscles were lar and dark colored. Pericardium contained a small amount of clear serum. He had considerable fat on surface; weight, 350 grams. Opened *in situ.* Le ventricle contracted. Right ventricle contained clotted blood. Mitral val admitted two finger tips; tricuspid two fingers entire. Aortic and pulmona

[illegible]

[illegible]

ALCOHOLISM—DELIRIUM TREMENS—ŒDEMA OF THE BRAIN.

[illegible] age, 32; nativity, New Jersey; admitted to the United States Ma[illegible] Hospital, Chicago, Ill., October 13, 1900; died October 26, 1900.

History.—Two years ago patient experienced an attack of pneumonia. [illegible] months ago he was subjected to exposure in a severe storm at sea, during wh[illegible] feet and legs were drenched. Soon afterwards his extremities began to s[illegible] and pains and cramps in the gastrocnemii muscles developed. On admis[illegible] there was a superficial traumatic ulceration on the right leg, and both legs w[illegible] swollen and œdematous to the knees. Frequent and painful urination was a[illegible] prominent symptom, the onset of which dated from the exposure referred [illegible] Motion of the joints caused pain after a total abstinence of two years. Pa[illegible] had been drinking excessively for three weeks prior to admission and he had [illegible] sleep, anorexia, insomnia, and a coarse muscular tremor. His mind was [illegible] The pulse was 120, full and bounding. Temperature normal, and remained [illegible] throughout illness. The urine contained a flocculent sediment, a trace of albu[illegible] and a few hyaline and granular casts; spermatozoa were present in large num[illegible] also calcium oxalate crystals, round celled epithelium, and pus cells. The tr[illegible] ment consisted of exclusive milk diet, an initial purge with blue mass 0.6; tinc[illegible] capsicum m. x t. i. d., and chloral hydrate 1 gram, with potass. bromid. 2 gr[illegible] every four hours as necessary to induce sleep.

October 16.—Patient became extremely nervous and developed hallucinat[illegible] and delusions of various sorts. The use of hypnotics produced little effect. [illegible] soon as patient closed his eyes he saw various objects, principally headless [illegible] mals, funerals, snakes, etc. ℞ whisky 30 c. c. and tr. digitalis m. x t. i. d.

October 18.—The swelling of the legs entirely disappeared. The pulse, wh[illegible] had become feeble, improved under the above stimulation, but patient be[illegible] delirious and tongue was tremulous and heavily furred.

October 20.—Patient required restraint to keep him in bed. He tore some of [illegible] bed clothing and had a muttering delirium. Whisky and capsicum discontin[illegible]

October 22.—Stupor developed. The respiratory murmur was found to be fe[illegible] over the bases of the lungs, and dullness prevailed in the same region. ℞ am[illegible] nium carbonate, 0.6 t. i. d.

October 25.—There was cough with tenacious mucous expectoration. Cyan[illegible] and excessive tremor; deep stupor; breath excessively offensive. The he[illegible] action was feeble and patient had incontinence of urine. Quincke puncture [illegible] spinal canal between third and fourth dorsal vertebræ resulted negatively.

October 26.—The pulse rate, which had reached to 160 per minute, fell to [illegible] and the heart's action stopped a short time before respiration was suspended.

Necropsy (three hours after death).—Body that of an adult white male, lar[illegible] developed and very corpulent. Absence of post-mortem rigidity, but some st[illegible] ing present. Median incision reveals a thick layer of subcutaneous fat. [illegible] opening the chest cavity the lungs were found to be in a state of hypostatic c[illegible] gestion at the bases. Pleuritic adhesions involved the left lower lobe. We[illegible] of lungs: Left, 270 grams; right, 290 grams. Heart apparently normal; wei[illegible] 470 grams. The kidneys were slightly fatty, the cortex being diminished [illegible] thickness. Weight of organs: Left, 180 grams; right, 190 grams. Spleen weig[illegible] 310 grams and was normal. Pancreas normal; weight, 140 grams. The liver [illegible] fatty; weight, 2,390 grams. Stomach and intestines normal. Meninges w[illegible] markedly œdematous, the serous effusion distended the subarachnoid sp[illegible] dilating the ventricles. The dura was strongly adherent; weight of organs [illegible] grams.

F. J. T[illegible]
H. W. [illegible]

PARALYSIS, HEMIPLEGIA.

C. W.; age, 41; nativity, Mississippi; admitted to the United States Ma[illegible] Hospital, New Orleans, La., January 5, 1901; died January 11, 1901.

History.—Patient states that twenty years ago he had a chancre that was followed by eruption; since then he has had pneumonia, smallpox, and gonorr[illegible] the latter three times. Ten years ago he was shot in the abdomen, making a [illegible] recovery after operation.

Present history.—Patient arose on the morning of January 1 in apparent [illegible] health. A short time after breakfast he complained of pain in the face. [illegible] pain, at no time severe, soon shifted to the base of the skull and then down [illegible] back. While standing a short time afterwards he fell to the deck and was [illegible] ble to rise on account of loss of power in the left side. He was placed in [illegible]

Pain extended down right leg to foot. Right leg began to get numb and have no feeling in it eleven days ago, and left six days ago. Had bad headaches for past two or three days. Appetite poor. Incontinence of urine and feces.

Physical examination.—General condition poor; has large bed sore on sacrum, another on right hip, and small ones over malleoli; heart and lungs negative; has area of hyperesthesia, just above umbilicus, encircling abdomen; below this area and involving both lower limbs, has anæsthesia, the loss of sensation being almost total. Both lower limbs are paralyzed. Patellar reflexes lost. Paralysis of bladder and rectum muscles. Atrophic changes in both limbs marked. Cutaneous circulation poor.

Treatment.—Milk diet. Catheterized morning and night. Dress wounds with zinc oxide. ℞ Elixir ferri quin. et strych. et sirup hypophosph. Comp. aa partes equalem. M. signa: 5 c.c. t. i. d. Gentle massage to both limbs.

May 11, 1900.—Constipated; stop milk diet; bed sores have become larger and deeper and discharge considerable pus; foul odor from them. Enemas to relieve bowels effectual. General condition worse; no pain; has headaches; sleeps fairly well; has chills, fever, and sweats, which are controlled by quinine.

June 11, 1900.—Bed sores worse, deeper, larger, and offensive. Dressed with charcoal, beta naphthol, etc. General condition very poor; losing flesh; pulse rapid and feeble; limbs, marked atrophied; severe headaches; complains of cramp-like pains in abdomen; can't sleep; right pupil larger than left. ℞ Strychnia sulph., .002 every three hours. ℞ Sat. sol. potass. iodide, gtt. 30 t. i. d. Phenacetine to relieve headaches, and hypnotics, as sulphonal, trional, and morphine to produce sleep.

July 1, 1900.—Condition rapidly grew worse and, despite stimulation, he died.

Necropsy (eighteen hours after death).—Body, male; aged about 50 years; extremely emaciated; eyes glazed; right pupil dilated, left contracted; rigor mortis well developed; slight suggillations in dependent portions of body; large and deep bed sore on buttocks, exposing sacrum; another over left hip and others over external condyle of left femur and over both malleoli. Skull cap, normal; brain case, fair size; sinuses and blood vessels moderately filled with blood; membranes, normal. Considerable serous fluid escaped on opening into the cranial cavity. Brain weighs 1,510 grams; vessels congested; considerable œdema; cut section shows no gross lesion; anterior mediastinum, normal; remains thymus gland, negative. Pericardium, normal position; smooth and glistening; contains about 50 c. c. of clear serum. Heart (opened *in situ*): Ventricles contain fluid blood; pulmonary vessels and aorta contain "chicken-fat" clot; weight, 220 grams; aortic orifice competent according to hydrostatic test; valves negative; slight calcareous deposits in walls of aorta; mitral orifice small and valves contain calcareous deposits in the free border. Left pleura shows numerous adhesions throughout to lung; right pleura the same. Left lung: Weight, 700 grams; floats, crepitates, and on cut section shows considerable frothy serous exudate. Right lung: Weight, 420 grams; floats and crepitates; pigmented externally; œdematous. Great vessels and nerve trunks of thorax: Aorta in ascending and transverse portions shows considerable calcareous deposit. Diaphragm normal. Omentum negative. Spleen: Weight, 190 grams; normal position; cuts easily; cut section appears yellowish and anæmic. Left kidney: Normal position; weight, 190 grams; capsule nonadherent; cut section shows distinct markings; cortex thickened and yellowish in appearance. Right kidney: Shows same gross findings as left; weight, 166 grams; suprarenal capsules normal. Ureters normal. Bladder: Mucous membrane roughened, thickened, and covered with muco-purulent exudate. Generative organs: Several scars on head of penis. Pancreas normal. Stomach normal. Duodenum normal. Gall bladder and ducts normal. Liver: Weight, 1,750 grams; cuts easily; slight yellowish appearance to cut section. Large and small intestines normal. Spinal cord removed, and about 1 inch of the lower portion of dorsal region was degenerated; degeneration was transverse; cord in this section was smaller and softer than normally. Cord placed in Muller's fluid.

J. M. K.

CEREBRAL HEMORRHAGE.

J. M.; age, 50; nativity, Russia; admitted to the United States Marine Hospital, Baltimore, Md., September 17, 1900; died September 21, 1900.

History.—Owing to patient's mental condition it was impossible to obtain a clear history of his family, previous diseases, or present illness, the only approach to the same being the statement of the captain of the ship from which patient came, who stated that several days before the arrival of the vessel in this port the

February 24, 1900.—Complains of tremors and pain in legs and arms at night. Testicle became large and tender. Scrotum thick and œdematous.

March 16, 1900.—A perineal fistula was found, through which most of the urine escaped. Urine very offensive. Patient continued in this condition until March

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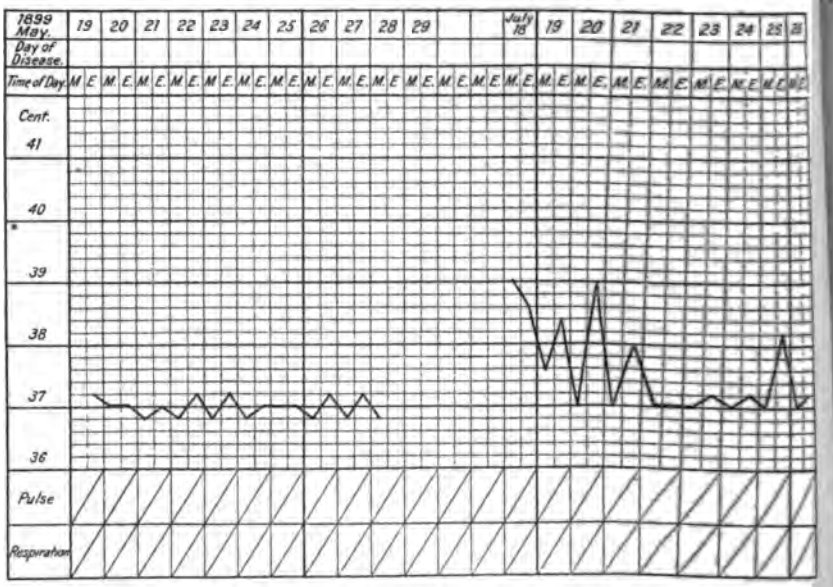
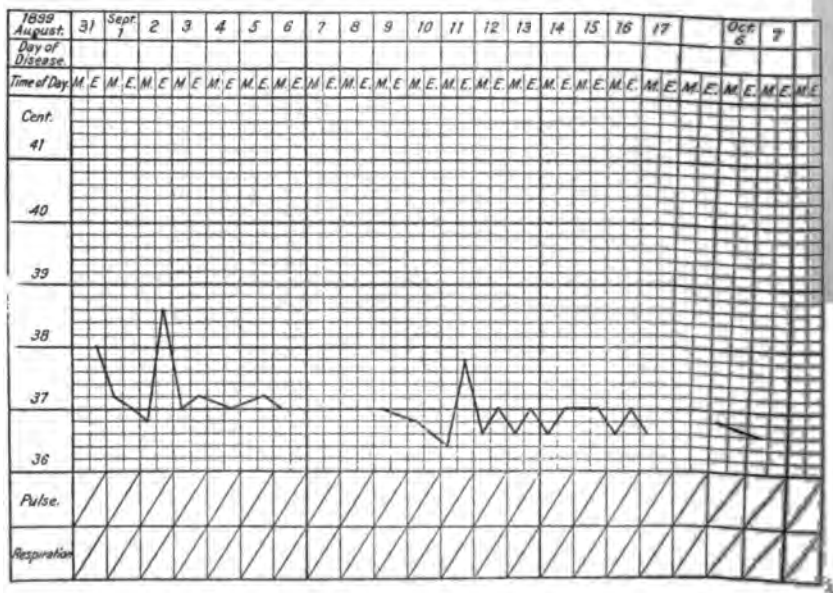
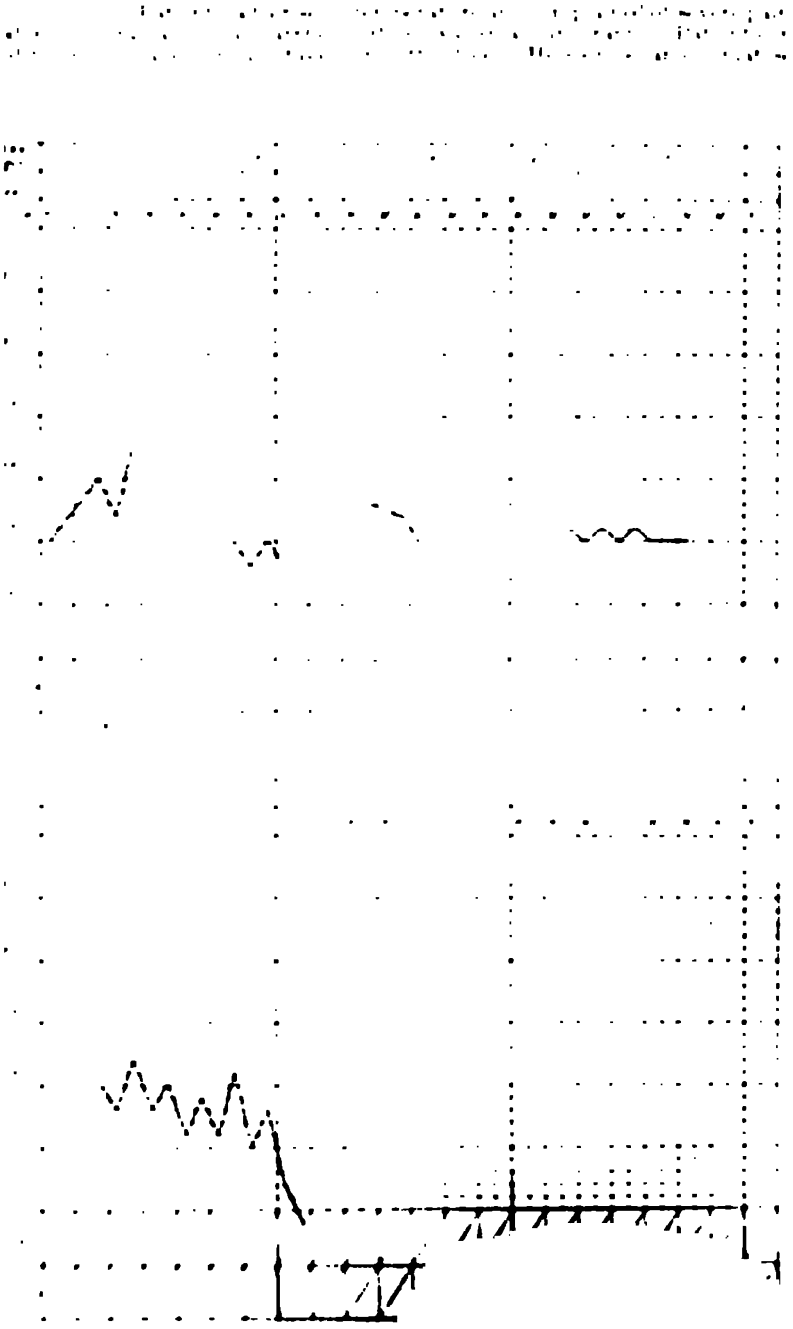
Name, J. J.; age, 43 years; disease, degeneration of spinal cord, lateral and posterior columns





18, 1901; at times he would have an increase in the intensity of his symptoms. Constipation alternated with diarrhea of a bloody nature. The fistula in perineum remained, at times discharging a purulent fluid. An ischio-rectal fistula was also found. Patient at times suffered from headaches, nausea, and vomiting.



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C. W. V.
J. M. G.

GAMMATOUS TUMOR OF THE BRAIN.

J. J.; admitted to the United States Marine Hospital, Stapleton, Staten Island, September 18, 1900; age, 37; nativity, Norway; last employed on schooner *Grace D. Chambers;* died May 19, 1901.

History.—The patient entered the hospital formerly March 2, 1900, and remained under treatment at that time until September 17, 1900, the diagnosis being syphilis. His most conspicuous symptom at the first was intense headache, principally on the right side, but shifting, and occasionally entirely absent for a day or so. He also had pains in the feet and legs. Gait was ataxic. Pupils reacted to light and accommodation, but the right was narrower than the left. The patellar reflexes were absent. There was no evidence of anesthesia anywhere. There were no clear external signs of syphilis. He gave a history of having had venereal disease about fifteen years previously. Treatment had no perceptible effect in checking the slow progress of the disease, which was characterized by loss of nervous power, in the mental and motor systems particularly. Vision failed also, and the complaints of pain in head and feet were more or less constant. The patient was absent only one day from the hospital, when discharged in September. His condition progressed steadily, until at the last he was completely helpless, demented, and blind. The symptoms by which a tumor of the brain could have been diagnosed and its position definitely located were never clear, and there was much cause for believing that the ataxic symptoms were due to an affection of the spinal cord. The patient died in coma, having had a number of similar spells previously, which lasted only briefly.

Necropsy (six hours after death).—Body well nourished and muscular. Post-mortem lividity and rigidity of dependent parts moderately developed. Pupils moderately and evenly dilated. Right little finger missing. Two small ulcers over internal malleolus, extending deeply into the skin. Epidermis of right heel loosened, showing red derma beneath. Skullcap thin. Meningeal vessels full of dark, fluid blood. Superficial vessels of brain contained dark, fluid blood. A tumor was found in the brain case above the tentorium cerebelli, compressing the cerebellum and pons and the occipital lobes of the brain. The left occipital lobe was greatly thinned, the surface markings and gray cortex being obliterated on the median surface. The right lobe was compressed to a less extent. The tumor lay about two-thirds to the left and one-third to the right of the median line. It weighed 320 grams and was nearly the size of the closed fist. It was firmly adherent to the dura, but not to the brain tissue. Its consistence was firm and the surface nodular. The bone over the tumor was eroded and so thin as to be translucent. The great longitudinal sinus was obliterated completely where it passed over the tumor. The cut surface of the tumor appeared fibrous and had an arborescent arrangement; it cut with difficulty. A specimen about 15 cm. long of the spinal cord presented no positive gross lesions. On opening abdomen subcutaneous fat was found in good quantity. The skeletal muscles were large and dark colored. Pericardium contained a small amount of clear serum. Heart had considerable fat on surface; weight, 350 grams. Opened *in situ.* Left ventricle contracted. Right ventricle contained clotted blood. Mitral valve admitted two finger tips; tricuspid two fingers entire. Aortic and pulmonary

[illegible]

[illegible]

[illegible]

ALCOHOLISM—DELIRIUM TREMENS—ŒDEMA OF THI

J. R.; age, 32; nativity, New Jersey; admitted to the United Hospital, Chicago, Ill., October 13, 1900; died October 26, 1900.

History.—Two years ago patient experienced an attack of pne month ago he was subjected to exposure in a severe storm at sea. his feet and legs were drenched. Soon afterwards his extremities b and pains and cramps in the gastrocnemii muscles developed. there was a superficial traumatic ulceration on the right l g. and l swollen and œdematous to the knees. Frequent and painful urinat tressing symptom, the onset of which dated from the exposure Motion of the joints caused pain after a total abstinence of two y had been drinking excessively for three weeks prior to admission an plete anorexia, insomnia, and a coarse muscular tremor. His m The pulse was 120, full and bounding. Temperature normal, and throughout illness. The urine contained a flocculent sediment, a trac and a few hyaline and granular casts; spermatozoa were present in la also calcium oxalate crystals, round celled epithelium, and pus cell ment consisted of exclusive milk diet, an initial purge with blue mass capsicum m. x t. i. d., and chloral hydrate 1 gram, with potass. bro every four hours as necessary to induce sleep.

October 16.—Patient became extremely nervous and developed l and delusions of various sorts. The use of hypnotics produced litt soon as patient closed his eyes he saw various objects, principally mals, funerals, snakes, etc. ℞ whisky 30 c. c. and tr. digitalis m. x

October 18.—The swelling of the legs entirely disappeared. The had become feeble, improved under the above stimulation, but pa delirious and tongue was tremulous and heavily furred.

October 20.—Patient required restraint to keep him in bed. He to bed clothing and had a muttering delirium. Whisky and capsicum

October 22.—Stupor developed. The respiratory murmur was foun over the bases of the lungs, and dullness prevailed in the same regio nium carbonate, 0.6 t. i. d.

October 25.—There was cough with tenacious mucous expectoratio and excessive tremor; deep stupor; breath excessively offensive. action was feeble and patient had incontinence of urine. Quincke spinal canal between third and fourth dorsal vertebræ resulted nega

October 26.—The pulse rate, which had reached to 160 per minu and the heart's action stopped a short time before respiration was su

Necropsy (three hours after death).—Body that of an adult white developed and very corpulent. Absence of post-mortem rigidity, bu ing present. Median incision reveals a thick layer of subcutane opening the chest cavity the lungs were found to be in a state of hy gestion at the bases. Pleuritic adhesions involved the left lower lo of lungs: Left, 270 grams; right, 290 grams. Heart apparently nor 470 grams. The kidneys were slightly fatty, the cortex being d thickness. Weight of organs: Left, 180 grams; right, 190 grams. Sp 310 grams and was normal. Pancreas normal; weight, 140 grams. fatty; weight, 2,390 grams. Stomach and intestines normal. M markedly œdematous, the serous effusion distended the subarac dilating the ventricles. The dura was strongly adherent; weight grams.

PARALYSIS, HEMIPLEGIA.

C. W.; age, 41; nativity, Mississippi; admitted to the United S Hospital, New Orleans, La., January 5, 1901; died January 11, 1901.

History.—Patient states that twenty years ago he had a chancre followed by eruption; since then he has had pneumonia, smallpox, an the latter three times. Ten years ago he was shot in the abdomen, m recovery after operation.

Present history.—Patient arose on the morning of January 1 in a health. A short time after breakfast he complained of pain in th pain, at no time severe, soon shifted to the base of the skull and t back. While standing a short time afterwards he fell to the deck ble to rise on account of loss of power in the left side. He was pl

Pain extended down right leg to foot. Right leg began to get numb and ha feeling in it eleven days ago, and left six days ago. Had bad headaches fo two or three days. Appetite poor. Incontinence of urine and feces.

Physical examination.—General condition poor; has large bed sore on sac another on right hip, and small ones over malleoli; heart and lungs negative area of hyperesthesia, just above umbilicus, encircling abdomen; below this and involving both lower limbs, has anæsthesia, the loss of sensation being al total. Both lower limbs are paralyzed. Patellar reflexes lost. Paralysis of der and rectum muscles. Atrophic changes in both limbs marked. Cutai circulation poor.

Treatment.—Milk diet. Catheterized morning and night. Dress wounds zinc oxide. ℞ Elixir ferri quin. et strych. et sirup hypophosph. Comp. aa pa equalem. M. signa: 5 c.c. t. i. d. Gentle massage to both limbs.

May 11, 1900.—Constipated; stop milk diet; bed sores have become large: deeper and discharge considerable pus; foul odor from them. Enemas to r bowels effectual. General condition worse; no pain; has headaches; sleeps i well; has chills, fever, and sweats, which are controlled by quinine.

June 11, 1900.—Bed sores worse, deeper, larger, and offensive. Dressed charcoal, beta naphthol, etc. General condition very poor; losing flesh; rapid and feeble; limbs, marked atrophied; severe headaches; complains of cr like pains in abdomen; can't sleep; right pupil larger than left. ℞ Stry sulph., .002 every three hours. ℞ Sat. sol. potass. iodide, gtt. 30 t. i. d. I acetine to relieve headaches, and hypnotics, as sulphonal, trional, and morp to produce sleep.

July 1, 1900.—Condition rapidly grew worse and, despite stimulation, he d

Necropsy (eighteen hours after death).—Body, male; aged about 50 years tremely emaciated; eyes glazed; right pupil dilated, left contracted; rigor n well developed; slight suggillations in dependent portions of body; large and bed sore on buttocks, exposing sacrum; another over left hip and others overext condyle of left femur and over both malleoli. Skull cap, normal; brain case size; sinuses and blood vessels moderately filled with blood; membranes, no Considerable serous fluid escaped on opening into the cranial cavity. Brain w 1,510 grams; vessels congested; considerable œdema; cut section shows no lesion; anterior mediastinum, normal; remains thymus gland, negative. cardium, normal position; smooth and glistening; contains about 50 c. c. of serum. Heart (opened *in situ*): Ventricles contain fluid blood; pulmonary v and aorta contain "chicken-fat" clot; weight, 220 grams; aortic orifice co tent according to hydrostatic test; valves negative; slight calcareous depos walls of aorta; mitral orifice small and valves contain calcareous deposits i free border. Left pleura shows numerous adhesions throughout to lung; pleura the same. Left lung: Weight, 700 grams; floats, crepitates, and o section shows considerable frothy serous exudate. Right lung: Weight, 420 g floats and crepitates; pigmented externally; œdematous. Great vessels and trunks of thorax: Aorta in ascending and transverse portions shows conside calcareous deposit. Diaphragm normal. Omentum negative. Spleen: We 190 grams; normal position; cuts easily; cut section appears yellowish and ana Left kidney: Normal position; weight, 190 grams; capsule nonadherent; cu tion shows distinct markings; cortex thickened and yellowish in appear Right kidney: Shows same gross findings as left; weight, 166 grams; supra capsules normal. Ureters normal. Bladder: Mucous membrane rough thickened, and covered with muco-purulent exudate. Generative organs: Se scars on head of penis. Pancreas normal. Stomach normal. Duodenum no Gall bladder and ducts normal. Liver: Weight, 1,750 grams; cuts easily; s yellowish appearance to cut section. Large and small intestines normal. S cord removed, and about 1 inch of the lower portion of dorsal region was d erated; degeneration was transverse; cord in this section was smaller and s than normally. Cord placed in Muller's fluid.

J. M.

CEREBRAL HEMORRHAGE.

J. M.; age, 50; nativity, Russia; admitted to the United States Marine Hos Baltimore, Md., September 17, 1900; died September 21, 1900.

History.—Owing to patient's mental condition it was impossible to obt clear history of his family, previous diseases, or present illness, the only app to the same being the statement of the captain of the ship from which p came, who stated that several days before the arrival of the vessel in this po

[illegible]

[illegible]

[illegible] ANEURISM

[illegible] Patient fairly well nourished, [illegible] of [illegible] somewhat quickened [illegible] [illegible] sternum pain [illegible] [illegible] pulsating mass [illegible] [illegible] Patient passed a very [illegible] [illegible] coughed the sputum [illegible] speaks as if hoarse. At [illegible] At this [illegible]

October 14.—Patient is resting somewhat better. Tumor is much m nent and by giving away anteriorly has relieved the pressure, causing symptoms.

October 23.—Patient resting fairly well. Complains of weakness.

October 31.—Patient slept very little during the night. Coughed co Tumor shows no marked increase in size.

November 4.—Cough troubles patient very much, being almost inces

November 25, 1899.—Tumor has increased in size and soreness. Has phia every night for some time; sometimes two tablets during the each. From this date until the date of his death the patient suffered with smothering and coughing, which was relieved only by the use of Since October 9, 1899, he has had 75 c. c. of whisky daily.

January 5, 1901.—Post-mortem examination, two hours after death: showed man of medium size; body greatly emaciated. Pear-shaped t trudes through what was the manubrium, to a height of 3 inches above of the sternum; this juts into the space between the clavicles and exte ward for 5 inches. The skin was removed from the thorax and the through 3 inches from sternum. The sternum was then removed by di free from the aneurism; also the pericardium and pleura, both of w intimately adherent. This brought into view a large tumor, being t portion of the aortic arch. This dilatation was almost entirely filled w of coagulated and organized fibrin. The first 2 inches of the aorta w at this point the dilatation commenced and extended through the portion of the aorta to a level with the sixth dorsal vertebra. The ca emptied of the laminated clot formed by the organized fibrin was 6 i and 3½ inches in diameter. The aneurism had eroded the entire manu the upper 1 inch of the gladiolus; also the sternal end of the right first trachea was deflected to the right from its normal course and attached side of the aneurism. The pericardium was distended with 150 c. yellow serum. The heart was pale and flabby. Right lung nonadh contained scattered masses of caseous tubercular deposits. The left completely adherent to the chest wall and filled with caseous and pu Trachea was filled with thin purulent material. The patient having ha symptoms than those recorded, and having died of starvation, there wa sity for making further examination.

ANEURISM (SACCULAR), TRANSVERSE AORTA.

W. A.; age, 39 years; colored; nativity, Missouri; admitted to the U. Hospital, St. Louis, Mo., August 22, 1900; died October 27, 1900.

Family history.—Mother died of pneumonia. Father and one brother cause unknown.

Personal history.—Had measles and whooping cough during childhoo and gonorrhea in early manhood, also syphilis. At present complain in chest and shoulder and of a bad cold.

Physical examination.—Anæmic, fingers clubbed, and a sinking in a cle, superficial glands generally enlarged. On percussion higher pit with greater resistance on left side of chest. On auscultation, inspirator rough and wavy. Expiration prolonged and rough, especially on left si nosis, tubercle of lung. Treatment, supportive and tonic. Discharged 19, 1897, improved. Readmitted to hospital January 3, 1900. Co pains all over chest, and dyspnœa and palpitation of heart. Has some some sweats at night. Bowels regular and appetite poor. Has slig Examination reveals a pulsating tumor in second intercostal space, abou to left of sternum, giving distinct bruit. Left radial pulse not as full Systolic murmur at aortic valve. Diagnosis, aneurism of transve Treatment, iodide of potassium in increasing doses. Strychnine gr. 1 Codeine and phenacetin p. r. n. Discharged June 4, 1900, improved. R August 22, 1900, complaining of same trouble as above. Gives history a weight and feeling excruciating pain in back just below lower bor scapula, and of a sensation as of something giving way. Spits up b examination find dullness over entire left side of chest and respirat diminished on left side and increased on right. Complains constant and hypodermic injections of morphia necessary at frequent interval ment supportive and to relieve pain. Death occurred on the morning o 27, 1900.

widening out almost horizontally to the nipple, then curving down q cally to the diaphragm. Cardiac pulsation unusually plain to eye. examination negative. He complained often that food passed part wa ach, then remained some minutes, and later slowly passed on, or at time tated. Pain continued almost constant except when relieved by codein. of pain mainly in back, left thigh, occasionally in left testicle, rar shoulder. Rounded pulsating tumor appeared in epigastrium and c increased in size. Temperature was 37 to 37.5 in the morning and 37 the evening. Pulse varied from 85 to 100. December 13, at 8.40 p. n tasted blood and called for nurse. A moment later he began raising blo ful after mouthful until it amounted to about a pint. Pulse grew feeble. Soon he became comatose and no more blood escaped fro Abdomen became swollen and tympanitic. Death ensued in twenty-fiv

Necropsy (twenty-six hours after death).—Body emaciated. Abdon what distended. Rigor mortis present. Abdomen opened first, contain serum. Stomach greatly distended with fluid. Other viscera apparentl Thorax opened. Clear serum, 2,800 c. c. in left pleural cavity and 2 right. Viscera removed after tying all vessels. Left lung weighed 195 right 528 grams. Left lung compressed, crepitant only through upp upper lobe; right lung crepitant throughout, œdema in lower lobe. A tion of trachea one calcified lymph gland found. Pericardium contain clear serum. No adhesion in pleuræ or pericardium. Heart weighed 3 Valves competent. Slight evidence of atheroma. Stomach measured shorter curvature and 66 cm. on longer, and was 40 cm. in circumfere its middle. It contained 1,950 c. c. of clots and fluid blood. The live 2,040 grams and was of normal appearance externally and on section. weighed 290 grams, was 20 cm. long, 10 cm. wide, and 2.5 cm. thicl thickened, pulp firm, dark red. Intestines negative; pancreas the san removal of the above viscera except the heart, the diaphragm was cut erally. The heart, aorta, and beginnings of thoracic branches were dis and the abdominal aorta from the iliacs upward. The spinal column through above the eighth rib and through the fourth lumbar vertebra a from the eighth down, and the whole mass was then removed, includin neys *in situ*. A large fluctuating tumor had already been felt in front tebræ both from above and from below the diaphragm. After removal was about 20 cm. long from above downward, 15 cm. wide, and 9 to 10 The sac was filled with blood clot. Examination showed a division parts. The original sac, 13 cm. from above down by 5 cm. in diameter the anterior portion, and is indicated in the photograph by the adjoini the two canulas marked f f f, the upper "f" being an artificial openin arch of aorta and the lowest "f" a similar opening at bifurcation of aorta. The canula "n" passes (just above this letter) into the cœliac a was much dilated and was the lowest point of the aneurismal enl Canula "k k" passes through the superior mesenteric artery, which was ently enlarged. Burrowing from the original sac was another to the upper part, which measured 7 to 8 cm. long and 5 cm. in diameter. T agus ran just posterior to this, and at the deepest part of this sac w rupture into the œsophagus. This explained the hemoptysis on night the sudden distension of abdomen, and the blood found later in the stom situation of this sac also explained the difficulty in swallowing and the regurgitation of liquid food. The canula "g g" passes through the wh of œsophagus as dissected out, while "h h" is a curved canula passin the rupture in sac and down the œsophagus to point where cut just ab ach. The point of rupture was too deep to be shown in photograph. P middle of original sac was the third, which contained the dissected out eroded vertebræ, the last two dorsal and first two lumbar, and which ha the ribs on the left and occasioned the feeling of fluctuation at upper psoas muscle while sac and diaphragm were intact. This vertebral cm. long from above down, 13 cm. wide, and 7 cm. deep.

VALVULAR DISEASE OF HEART.

Bright's disease.

S. M. (colored); age, 68; nativity, Alabama; was admitted to Un Marine Hospital March 6, 1901; died June 11, 1901.

History.—Four years ago had an attack of fever, presumably malar having had any venereal disease. Was treated in this hospital two y

[illegible]

[illegible]

[illegible] Marine

[illegible] left ventricle with

[illegible] and arches well marked

M. [illegible] pulse small and rapid; dyspnœa

[illegible] pain in right side of chest at level of fourth

[illegible] with breathing. June 3, patient drowsy on

[illegible] and died of heart failure, the pulse

[illegible] patient was placed on potassi

[illegible] Late. In a week pati

[illegible] A white appearing

[illegible] with silver nitrate. On May 1

[illegible] the angina like cramps

[illegible] digitalis. May 31.

[illegible] right side, [illegible]

[illegible] the heart. March

[illegible] but did not

June 2, hypodermics of Magendie's solution of morphia were given to allay ex
ment. June 3, stimulants were given, but at 2.30 a. m., next day, he died qui
Necropsy (nine hours after death).—Body that of a well-nourished, musc
adult male 1.65 m. in length; cadaveric rigidity well marked; suggillations pr
in upper extremity, none in lower; great œdema of lower extremities. B
Weight, 1.470 grams; dura not adherent, subdural space contains 200 c. c. se
fluid. Heart: *In situ* heart enlarged to left and downward, though slightly
vated by diaphragm. Weight, 750 grams. Right side of heart full of blood;
tains a large post-mortem clot; post-mortem clots in all the great vessels. (
nary sinus congested. The aorta contains an ante-mortem clot. The right au
contains a large ante-mortem clot. The aortic valve is incompetent by hy
static test; segments shrunken, and sclerotic, with atheromatous plates ar
root of aorta; wall of aorta hypertrophied. The wall of the left ventricle sl
hypertrophic dilatation. The mitral valve is shrunken and thinned; the
auricle is dilated and hypertrophied. The pulmonary valves are thinned;
right ventricle shows hypertrophic dilatation. The tricuspid valve is transpa
the edges being worn thin; the right auricle is dilated. Lungs: Weight, left
grams, right 820 grams; float on water; marked congestion and œdema, (
cially in lower lobes. Right lung adherent at base and to pericardium. L
Weight, 2,000 grams; nodulated; connective tissue in excess; nutmeg appear
on section. Spleen: Weight 150 grams; cirrhotic; indulated; capsule adher
Kidneys: Weight, right 237 grams, left 220 grams. Lobulated; capsule ad
ent; interstitial tissue in excess. Fatty degeneration of pyamids.

J. N. I
C. W.
J. M. (

Aortic and mitral.

H. J.; age, 59 years; nativity, Arkansas; admitted to United States M
Hospital November 23, 1900; died November 24, 1900.

History.—Patient denies having had syphilis or rheumatism; was first t
sick about two weeks prior to admission. On admission dyspnœa was mar
sleeping was difficult except in sitting position; cough slight; ankles and feet (
matous. On physical examination the heart was found to be enlarged with sys
murmurs audible at both base and apex; apex displaced to left and downw
area of liver dullness considerably enlarged; spleen not enlarged.

Necropsy (twenty hours after death).—Body well nourished; ankles and scro
œdematous; rigor mortis present. Brain: Weight, 1.370 grams; old l
meningitis over vertex along longitudinal fissure, the membranes being fi
adherent to cortex and the surrounding veins engorged. Heart fatty, espec
on right side; Weight, 620 grams; chicken-fat clots in all cavities; left vent
cavity slightly enlarged and walls much thickened; aortic valves thickened
roughened and opening enlarged; mitral leaflets apparently normal, but ope
enlarged admits three fingers; aorta for first inch or two thickened and cal
ous. Lungs both show hypostatic congestion and pleuritic adhesions; right
hepatized at base; Weight, left lung, 660 grams; right 1.150 grams. Liver enla
and congested; Weight, 2.170 grams; gall bladder moderately full. Spleen nor
Weight, 360 grams. Kidneys normal; Weight, left, 220 grams; right, 220 gr

G. U.

Mitral.

A. P.; age, 59; colored; nativity, Kentucky; admitted to United States M
Hospital, St. Louis, Mo., May 13, 1901; died June 5, 1901.

History.—The patient first came to the hospital April 12, 1900, and was
charged improved April 17, 1900. He was also in this hospital from July 23,
to August 20, 1900, from February 5, 1901, to February 23, 1901, from Mar
1901, to April 12, 1901, and from May 13, 1901, to June 5, 1901, the date o
death. On all these occasions he suffered from symptoms due to the dis
condition of the mitral valve. He stated that he had an attack of rheumatis
1874 which lasted ten days, and that he had had slight rheumatic pains ever s
He had never had a venereal sore, but had had gonorrhea several times. Al
relatives were dead and he did not know what disease had caused the dea
his parents. The symptoms which troubled him most was dyspnœa, w
began about fifteen days before he first came to the hospital. He also had a s
cough and occasionally pains in his chest and abdomen. He had had the c
every winter for six or seven years.

[illegible]

[illegible]

[illegible]

VALVULAR HEART DISEASE.

J. S.; age, 54; nativity, Scotland; admitted to United States Marine H at Stapleton, port of New York, N. Y., January 18, 1901; died January 2

Height, 5 feet 6 inches; weight, 160 pounds.

Family history.—Most members of family long-lived. Father suffered from rheumatism. One brother died of miliary tuberculosis.

Previous sickness.—Had typhoid fever years ago, also an attack of gonc Has used alcohol and tobacco. Patient has been in this hospital ten tim first three for rheumatism, and the last seven for heart disease and rheum In November, 1898, he came here with symptoms of heart disease of three duration, consisting of shortness of breath, edema of extremities, cough, a turbed stomach. During his stay he had occasional slight rheumatic atta various joints. The cardiac signs were then described as enlargment, and systolic murmur at the apex, loud and localized. There were at first si pulmonary congestion and albuminuria, these later subsiding. There we signs of pleurisy. After a stay of two months he was able to go out. Th cessive visits resemble the first, differing only in the severity of the sym Under rest and appropriate medication compensation became reestablishe to fail again on the resumption of active life. At a physical examinatio October, 1900, the heart was found enormously enlarged, its action ext irregular; there was a loud mitral murmur occupying the second sound and aortic murmur of indeterminable occurrence with reference to the sounds. of an old pleurisy were found on the right side of the chest, and even some effusion was suspected, although no fluid was obtained upon aspiration. urine was but slightly albuminous and no casts were present. There was e dropsy, cough, dyspnœa, and gastric disturbance.

Upon leaving here, at his request, on January 7, 1901, he was warned as danger of his attempting hard work again.

When brought to the hospital in the ambulance the last time, January condition was very bad; he was apparently in extremis. There was great of the legs, orthopnœa, enormous distention of the cervical vessels and cy Bloody mucus was coughed up at intervals. The heart was apparently enlarged and its action was very irregular. To-and-fro murmurs were every audible, and pulsations at the wrist did not correspond to the heart beats. few of the latter reaching it. Under the influence of rest he improved s for a few days, then sank into a stuporous condition, cyanosis increased blood was coughed up but not expelled from the mouth, catheterization b necessary, and he died without regaining consciousness. His muscular a pose tissues did not suffer much. There was no fever during his last stay.

Medication was symptomatic and the employment of such remedies as di strophanthus, spartein, nitroglycerin, salicylic acid, potassium iodide, elat etc., when indicated.

Necropsy (thirty hours after death).—Body that of a male, apparently ab years of age. Rigor and post-mortem lividity present; body well nourish muscular; pupils evenly and moderately dilated; legs somewhat edematou incision considerable subcutaneous fat found; skeletal muscles well develop of a dark color. Mediastinum. Great increase of area occupied by the he abnormal separation of the anterior edges of the lungs. Thymus remai found. Pericardium contains an abnormal amount of clear yellow seru surface is smooth and white. Heart is very large. Opened *in situ* and bo tricles found to be dilated, the right very markedly. The right ventricle co fluid and clotted blood, the left is practically empty. On removing the hea the aortic and the pulmonary valves are found insufficient to the hydrostat The right auriculo-ventricular orifice admits three fingers easily; the mitral barely admits one finger, is of crescentic shape, and is narrowed by the contr and adhesion of the valve leaflets. The leaflets of the aortic valve are much ened, those of the pulmonary and tricuspid valves to a less extent, and th the mitral valve enormously thickened and the seat of numerous calc deposits. Myocardium, especially of the right ventricle, much reduced in ness. Heart weighs 590 grams. Left pleural cavity is free from abnorma or adhesions. Right pleural cavity is almost entirely obliterated by old adh The lungs resemble each other in being edematous and congested, floating in and exuding frothy blood and serum from the cut surface. Omentum cont large amount of fat. Spleen weighs 240 grams; is firm and dark colored. kidney weighs 240 grams, is firm, cuts a little hard, and presents on cut section surface with fairly distinct markings, light-colored striæ being visible in the mids, and the cortex of nearly normal thickness. Right kidney weighs 200

[illegible]

A. M. S.
C. W. S.

[illegible]

[illegible] red fluid. There are a few small [illegible] pleural cavity is obliterated, both layers of the pleura being adherent [illegible] whole extent. Pericardial cavity contains 100 c. c. of clear straw-red [illegible] Heart: Weight, 600 grams. The organ is enlarged and pale. The left [illegible] is full of dark clots, the right one also containing some, which are light [illegible] Left ventricle shows hypertrophy with some dilatation. Right ventricle [illegible] dilated. The pulmonary valves are normal except some slight thickening [illegible] free edges. The aortic valves do not sustain a column of water, the [illegible] being heavily stud[illegible] The left leaflets are [illegible] shortening of chord[illegible] mitral valve is normal. [illegible] left appears much compr[illegible] posteriorly; it crepitates throughout. The apex is more firm[illegible] it is red and firm, and presents quite an amount [illegible] weight, [illegible] Right [illegible] is darkly pig[illegible] it is [illegible] and crepitates but little. [illegible] lower weight 600 grams [illegible] by [illegible] The surface [illegible] The cut surface [illegible] The malpighian [illegible]

October 14.—Patient is resting somewhat better. Tumor is much nent and by giving away anteriorly has relieved the pressure, causin symptoms.

October 23.—Patient resting fairly well. Complains of weakness.

October 31.—Patient slept very little during the night. Coughed Tumor shows no marked increase in size.

November 4.—Cough troubles patient very much, being almost inc

November 25, 1899.—Tumor has increased in size and soreness. E phia every night for some time; sometimes two tablets during th each. From this date until the date of his death the patient suffere with smothering and coughing, which was relieved only by the use Since October 9, 1899, he has had 75 c. c. of whisky daily.

January 5, 1901.—Post-mortem examination, two hours after deat showed man of medium size; body greatly emaciated. Pear-shape trudes through what was the manubrium, to a height of 3 inches ab of the sternum; this juts into the space between the clavicles and e ward for 5 inches. The skin was removed from the thorax and t through 3 inches from sternum. The sternum was then removed b free from the aneurism; also the pericardium and pleura, both of intimately adherent. This brought into view a large tumor, bein portion of the aortic arch. This dilatation was almost entirely fille of coagulated and organized fibrin. The first 2 inches of the aorta at this point the dilatation commenced and extended through th portion of the aorta to a level with the sixth dorsal vertebra. The emptied of the laminated clot formed by the organized fibrin was and 3½ inches in diameter. The aneurism had eroded the entire ma the upper 1 inch of the gladiolus; also the sternal end of the right fi trachea was deflected to the right from its normal course and attach side of the aneurism. The pericardium was distended with 150 yellow serum. The heart was pale and flabby. Right lung non contained scattered masses of caseous tubercular deposits. The l completely adherent to the chest wall and filled with caseous and Trachea was filled with thin purulent material. The patient having symptoms than those recorded, and having died of starvation, there sity for making further examination.

ANEURISM (SACCULAR), TRANSVERSE AORTA

W. A.; age, 39 years; colored; nativity, Missouri; admitted to the Hospital, St. Louis, Mo., August 22, 1900; died October 27, 1900.

Family history.—Mother died of pneumonia. Father and one brot cause unknown.

Personal history.—Had measles and whooping cough during childh and gonorrhea in early manhood, also syphilis. At present compl in chest and shoulder and of a bad cold.

Physical examination.—Anæmic, fingers clubbed, and a sinking in cle, superficial glands generally enlarged. On percussion higher with greater resistance on left side of chest. On auscultation, inspira rough and wavy. Expiration prolonged and rough, especially on left nosis, tubercle of lung. Treatment, supportive and tonic. Discharg 19, 1897, improved. Readmitted to hospital January 3, 1900. C pains all over chest, and dyspnœa and palpitation of heart. Has so some sweats at night. Bowels regular and appetite poor. Has s Examination reveals a pulsating tumor in second intercostal space, a to left of sternum, giving distinct bruit. Left radial pulse not as Systolic murmur at aortic valve. Diagnosis, aneurism of tran Treatment, iodide of potassium in increasing doses. Strychnine g Codeine and phenacetin p. r. n. Discharged June 4, 1900, improved. August 22, 1900, complaining of same trouble as above. Gives hist a weight and feeling excruciating pain in back just below lower b scapula, and of a sensation as of something giving way. Spits u examination find dullness over entire left side of chest and respir diminished on left side and increased on right. Complains const and hypodermic injections of morphia necessary at frequent inter ment supportive and to relieve pain. Death occurred on the mornin 27, 1900.

widening out almost horizontally to the nipple, then curving down quit
cally to the diaphragm. Cardiac pulsation unusually plain to eye. U
examination negative. He complained often that food passed part way t
ach, then remained some minutes, and later slowly passed on, or at times r
tated. Pain continued almost constant except when relieved by codein. L
of pain mainly in back, left thigh, occasionally in left testicle, rarely
shoulder. Rounded pulsating tumor appeared in epigastrium and cont
increased in size. Temperature was 37 to 37.5 in the morning and 37.6
the evening. Pulse varied from 85 to 100. December 13, at 8.40 p. m.,
tasted blood and called for nurse. A moment later he began raising blood
ful after mouthful until it amounted to about a pint. Pulse grew ra
feeble. Soon he became comatose and no more blood escaped from
Abdomen became swollen and tympanitic. Death ensued in twenty-five m

Necropsy (twenty-six hours after death).—Body emaciated. Abdomen
what distended. Rigor mortis present. Abdomen opened first, contained
serum. Stomach greatly distended with fluid. Other viscera apparently
Thorax opened. Clear serum, 2,800 c. c. in left pleural cavity and 250
right. Viscera removed after tying all vessels. Left lung weighed 195 gra
right 528 grams. Left lung compressed, crepitant only through upper
upper lobe; right lung crepitant throughout, œdema in lower lobe. At
tion of trachea one calcified lymph gland found. Pericardium contained
clear serum. No adhesion in pleurae or pericardium. Heart weighed 335
Valves competent. Slight evidence of atheroma. Stomach measured 34
shorter curvature and 66 cm. on longer, and was 40 cm. in circumferenc
its middle. It contained 1,950 c. c. of clots and fluid blood. The liver w
2,040 grams and was of normal appearance externally and on section. The
weighed 290 grams, was 20 cm. long, 10 cm. wide, and 2.5 cm. thick;
thickened, pulp firm, dark red. Intestines negative; pancreas the same.
removal of the above viscera except the heart, the diaphragm was cut aw
erally. The heart, aorta, and beginnings of thoracic branches were dissec
and the abdominal aorta from the iliacs upward. The spinal column wa
through above the eighth rib and through the fourth lumbar vertebra and
from the eighth down, and the whole mass was then removed, including
neys *in situ*. A large fluctuating tumor had already been felt in front of
tebræ both from above and from below the diaphragm. After removal th
was about 20 cm. long from above downward, 15 cm. wide, and 9 to 10 cm
The sac was filled with blood clot. Examination showed a division int
parts. The original sac, 13 cm. from above down by 5 cm. in diameter,
the anterior portion, and is indicated in the photograph by the adjoining
the two canulas marked f f f, the upper "f" being an artificial opening
arch of aorta and the lowest "f" a similar opening at bifurcation of abd
aorta. The canula "n" passes (just above this letter) into the cœliac axis,
was much dilated and was the lowest point of the aneurismal enlarg
Canula "k k" passes through the superior mesenteric artery, which was not
ently enlarged. Burrowing from the original sac was another to the lef
upper part, which measured 7 to 8 cm. long and 5 cm. in diameter. The
agus ran just posterior to this, and at the deepest part of this sac was
rupture into the œsophagus. This explained the hemoptysis on night of
the sudden distension of abdomen, and the blood found later in the stomach
situation of this sac also explained the difficulty in swallowing and the occ
regurgitation of liquid food. The canula "g g" passes through the whole
of œsophagus as dissected out, while "h h" is a curved canula passing t
the rupture in sac and down the œsophagus to point where cut just above
ach. The point of rupture was too deep to be shown in photograph. Post
middle of original sac was the third, which contained the dissected out and
eroded vertebræ, the last two dorsal and first two lumbar, and which had fo
the ribs on the left and occasioned the feeling of fluctuation at upper part
psoas muscle while sac and diaphragm were intact. This vertebral sac
cm. long from above down, 13 cm. wide, and 7 cm. deep.

S. I

VALVULAR DISEASE OF HEART.

Bright's disease.

S. M. (colored); age, 68; nativity, Alabama; was admitted to United
Marine Hospital March 6, 1901; died June 11, 1901.

History.—Four years ago had an attack of fever, presumably malaria.
having had any venereal disease. Was treated in this hospital two years

[illegible]

[illegible]

[illegible]

[illegible] tincture [illegible] milk diet, the [illegible] May, [illegible] May 14 the patient [illegible] tincture of [illegible] pain at upper [illegible] relieve [illegible]

June 2, hypodermics of Magendie's solution of morphia were given to allay e
ment. June 3, stimulants were given, but at 2.30 a. m., next day, he died qu
Necropsy (nine hours after death).—Body that of a well-nourished, mus
adult male 1.65 m. in length; cadaveric rigidity well marked; suggillations pr
in upper extremity, none in lower; great œdema of lower extremities. E
Weight, 1,470 grams; dura not adherent, subdural space contains 200 c. c. s
fluid. Heart: *In situ* heart enlarged to left and downward, though slightl
vated by diaphragm. Weight, 750 grams. Right side of heart full of blood;
tains a large post-mortem clot; post-mortem clots in all the great vessels.
nary sinus congested. The aorta contains an ante-mortem clot. The right a
contains a large ante-mortem clot. The aortic valve is incompetent by h
static test; segments shrunken, and sclerotic, with atheromatous plates ar
root of aorta; wall of aorta hypertrophied. The wall of the left ventricle s
hypertrophic dilatation. The mitral valve is shrunken and thinned; the
auricle is dilated and hypertrophied. The pulmonary valves are thinned
right ventricle shows hypertrophic dilatation. The tricuspid valve is transpa
the edges being worn thin; the right auricle is dilated. Lungs: Weight, left
grams, right 820 grams; float on water; marked congestion and œdema,
cially in lower lobes. Right lung adherent at base and to pericardium. L
Weight, 2,000 grams; nodulated; connective tissue in excess; nutmeg appear
on section. Spleen: Weight 150 grams; cirrhotic; indulated; capsule adhe
Kidneys: Weight, right 237 grams, left 220 grams. Lobulated; capsule a
ent; interstitial tissue in excess. Fatty degeneration of pyamids.

J. N.
C. W.
J. M.

Aortic and mitral.

H. J.; age, 59 years; nativity, Arkansas; admitted to United States M
Hospital November 23, 1900; died November 24, 1900.

History.—Patient denies having had syphilis or rheumatism; was first t
sick about two weeks prior to admission. On admission dyspnœa was ma
sleeping was difficult except in sitting position; cough slight; ankles and feet
matous. On physical examination the heart was found to be enlarged with sy
murmurs audible at both base and apex; apex displaced to left and downw
area of liver dullness considerably enlarged; spleen not enlarged.

Necropsy (twenty hours after death).—Body well nourished; ankles and scr
œdematous; rigor mortis present. Brain: Weight, 1,370 grams; old
meningitis over vertex along longitudinal fissure, the membranes being f
adherent to cortex and the surrounding veins engorged. Heart fatty, espec
on right side; Weight, 620 grams; chicken-fat clots in all cavities; left vent
cavity slightly enlarged and walls much thickened; aortic valves thickened
roughened and opening enlarged; mitral leaflets apparently normal, but ope
enlarged admits three fingers; aorta for first inch or two thickened and cal
ous. Lungs both show hypostatic congestion and pleuritic adhesions; right
hepatized at base; Weight, left lung, 660 grams; right 1,150 grams. Liver enla
and congested; Weight, 2,170 grams; gall bladder moderately full. Spleen no
Weight, 360 grams. Kidneys normal; Weight, left, 220 grams; right, 220 gr

G. U.

Mitral.

A. P.; age, 59; colored; nativity, Kentucky; admitted to United States M
Hospital, St. Louis, Mo., May 13, 1901; died June 5, 1901.

History.—The patient first came to the hospital April 12, 1900, and wa
charged improved April 17, 1900. He was also in this hospital from July 23,
to August 20, 1900, from February 5, 1901, to February 23, 1901, from Ma
1901, to April 12, 1901, and from May 13, 1901, to June 5, 1901, the date
death. On all these occasions he suffered from symptoms due to the di
condition of the mitral valve. He stated that he had an attack of rheumati
1874 which lasted ten days, and that he had had slight rheumatic pains ever
He had never had a venereal sore, but had had gonorrhea several times. A
relatives were dead and he did not know what disease caused the de
his parents. The symptoms which troubled him mo as dyspnœa,
began about fifteen days before he first came to the hospital. He
cough and occasionally pains in his chest and abdomen. h
every winter for six or seven years.

[illegible]

[illegible]

VALVULAR HEART DISEASE.

J. S.; age, 56; nativity, Scotland; admitted to United States Marine Hos[illegible] at Stapleton, port of New York, N. Y., January 18, 1901; died January 25, [illegible]
Height, 5 feet 6 inches; weight, 160 pounds.

Family history.—Most members of family long-lived. Father suffered [illegible] from rheumatism. One brother died of miliary tuberculosis.

Previous sickness.—Had typhoid fever years ago, also an attack of gonor[illegible] Has used alcohol and tobacco. Patient has been in this hospital ten times: first three for rheumatism, and the last seven for heart disease and rheuma[illegible] In November, 1898, he came here with symptoms of heart disease of three we[illegible] duration, consisting of shortness of breath, edema of extremities, cough, and [illegible] turbed stomach. During his stay he had occasional slight rheumatic attack[illegible] various joints. The cardiac signs were then described as enlargment, and a [illegible] systolic murmur at the apex, loud and localized. There were at first sign[illegible] pulmonary congestion and albuminuria, these later subsiding. There were [illegible] sign of pleurisy. After a stay of two months he was able to go out. The[illegible] cessive visits resemble the first, differing only in the severity of the sympto[illegible] Under rest and appropriate medication compensation became reestablished, [illegible] to fail again on the resumption of active life. At a physical examination [illegible] October, 1900, the heart was found enormously enlarged, its action extre[illegible] irregular; there was a loud mitral murmur occupying the second sound and als[illegible] aortic murmur of indeterminable occurrence with reference to the sounds. S[illegible] of an old pleurisy were found on the right side of the chest, and even some ac[illegible] effusion was suspected, although no fluid was obtained upon aspiration. [illegible] urine was but slightly albuminous and no casts were present. There was extre[illegible] dropsy, cough, dyspnœa, and gastric disturbance.

Upon leaving here, at his request, on January 7, 1901, he was warned as to [illegible] danger of his attempting hard work again.

When brought to the hospital in the ambulance the last time, January 18, [illegible] condition was very bad; he was apparently in extremis. There was great ede[illegible] of the legs, orthopnœa, enormous distention of the cervical vessels and cyano[illegible] Bloody mucus was coughed up at intervals. The heart was apparently m[illegible] enlarged and its action was very irregular. To-and-fro murmurs were everywh[illegible] audible, and pulsations at the wrist did not correspond to the heart beats, on[illegible] few of the latter reaching it. Under the influence of rest he improved sligh[illegible] for a few days, then sank into a stuporous condition, cyanosis increased, [illegible] blood was coughed up but not expelled from the mouth, catheterization bec[illegible] necessary, and he died without regaining consciousness. His muscular and [illegible] pose tissues did not suffer much. There was no fever during his last stay.

Medication was symptomatic and the employment of such remedies as digita[illegible] strophanthus, spartein, nitroglycerin, salicylic acid, potassium iodide, elateri[illegible] etc., when indicated.

Necropsy (thirty hours after death).—Body that of a male, apparently abou[illegible] years of age. Rigor and post-mortem lividity present; body well nourished; [illegible] muscular; pupils evenly and moderately dilated; legs somewhat edematous. [illegible] incision considerable subcutaneous fat found; skeletal muscles well developed; [illegible] of a dark color. Mediastinum. Great increase of area occupied by the heart; [illegible] abnormal separation of the anterior edges of the lungs. Thymus remains [illegible] found. Pericardium contains an abnormal amount of clear yellow serum; [illegible] surface is smooth and white. Heart is very large. Opened *in situ* and both v[illegible] tricles found to be dilated, the right very markedly. The right ventricle co[illegible] fluid and clotted blood, the left is practically empty. On removing the heart [illegible] the aortic and the pulmonary valves are found insufficient to the hydrostatic [illegible] The right auriculo ventricular orifice admits three fingers easily; the mitral o[illegible] barely admits one finger, is of crescentic shape, and is narrowed by the contra[illegible] and adhesion of the valve leaflets. The leaflets of the aortic valve are much th[illegible] ened, those of the pulmonary and tricuspid valves to a less extent, and the [illegible] the mitral valve enormously thickened and the seat of numerous calca[illegible] deposits. Myocardium, especially of the right ventricle, much reduced in th[illegible] ness. Heart weighs 590 grams. Left pleural cavity is free from abnormal [illegible] or adhesions. Right pleural cavity is almost entirely obliterated by old adhe[illegible] The lungs resemble each other in being edematous and co[illegible] ed, floating in w[illegible] and exuding frothy blood and serum from the cut surfa[illegible] Omentum conta[illegible] large amount of fat. Spleen weighs 240 grams; is firm [illegible] dark colored [illegible] kidney weighs 240 grams, is firm, cuts a little hard, and pre[illegible] surface with fairly distinct markings, light-colored stria[illegible] mids, and the cortex of nearly normal thickness. Righ[illegible]

ventricle dilated. The pulmonary valves are ...

... at their free edges. The a... valves do ...

their free edges being heavily ... vegetat...

bound down by shortening of ... The tr...

Lungs. Left ...

throughout. ...

kidney: Weight, 140 grams. Perinephritic fat is scanty. The organ is flab and pale. Near the outer border is a small shallow depression with a white ba The cut surface is pale and the markings indistinct. The cortex is thickened. one of the pyramids, near the apex, is a white spherical body, 1 mm. in diame Right kidney: Weight, 155 grams: practically the same as the left. Gall blad is moderately distended with dark-brown fluid. Liver: Weight, 2,000 gra slightly enlarged: surface smooth: capsule of normal tension. The surface pale with blood-stained areas: consistency normal. White spot, 2 cm. in diame is seen on the upper surface of the right lobe. The liver is pale on section. shows evidence of fatty change. Blood exudes from the cut surface. Intesti are moderately distended with gas, otherwise normal. Bladder is slightly d tended with urine. Dura mater shows evidence of recent inflammation along longitudinal sinus. There is a small amount of fibrin on the pia mater of superior surface of the cerebrum. Brain: Weight, 1,420 grams. Is very and tears easily, probably from post-mortem change. On section it shows abnormality.

R. L. W.
J. M. G.

Aortic and mitral.

G. W. P.; age, 44; nativity, Scotland; admitted to the United States Mar Hospital, Boston, Mass., March 24, and died July 10, 1900.

On examination, the following points of interest were revealed: Patient suff from dyspnoea, which is increased on exertion, pain over cardiac region, insom dizziness, headache, and palpitation of the heart. A physical examination show on inspection, a diminished inspiration with a prolonged expiration, also a disti carotid pulsation. On palpation the apex beat is stronger than normal and displaced downward and to the left. Can also feel a distinct auricular thrill the third and fourth left intercostal spaces. Patient has a distinct Corrigan pul On percussion there is an increased area of cardiac dulness, both relative a absolute. On auscultation there is a loud, rough, and blowing diastolic mu mur heard over the aortic area and transmitted along the left border of sternum. There can also be heard a soft blowing systolic murmur over th mitral area, transmitted toward the axillary line. Patient was put to bed a given heart tonics.

On June 15 the patient began expectorating blood and presented a very anx countenance; there was some œdema of the feet and legs. On July 10 pati died from heart failure.

Necropsy (thirteen hours after death).—On inspection the feet and legs we very œdematous, pupils equally dilated, rigor mortis present only in the low extremities, post-mortem lividity marked, mouth filled with dark frothy blo Circulatory organs: Heart three times its normal size, the walls slightly hyp trophied and shows some fatty degeneration. The ventricles and auricles we very much dilated. Weight of heart was 500 grams. The valves, both aor and mitral, were incompetent. The arteries were normal. Respiratory organ The nose, larynx, and trachea were normal. The left lung was congested a weighed 570 grams. The right lung was congested and weighed 1,100 gra The pleural cavity and pleura were normal. Gastro-intestinal tract: The tong pharynx, œsophagus, stomach, and intestines normal. Liver was nutmeg appearance and weighed 1,400 grams. The gall bladder was filled with bile. T spleen weighed 150 grams. The pancreas weighed 100 grams. The kidneys w normal in appearance, the left weighed 180 grams, the right weighed 200 gra The brain was normal and weighed 1,250 grams.

F. I

Mitral and aortic.

G. O.; age, 37; nativity, Norway; admitted to the United States Marine Ho pital, Boston, Mass., October 24, 1898; died July 4, 1900.

History. When admitted to this hospital, it was found on examination that had been a sufferer for several years from dyspnœa, fainting spells, dizzi palpitation of the heart, and had on several occasions expectorated blood. gave a history of having had quite a severe attack of rheumatism some back. A physical examination was made and the following points ob

On inspection patient was anæmic; had lost conside[illegible] fle[illegible] marked dyspnœa, increased on the slightest exertion, also [illegible]ng p[illegible] carotid arteries. On palpation there was a distinct [illegible] ha[illegible]

[illegible] was filled with [illegible]
[illegible] with a serous exudate. The left ventricle and auricle were [illegible] and dilated; the right ventricle and auricle were dilated. The [illegible] 280 grams. The mitral, aortic, and pulmonary valves were covered [illegible]. Respiratory organs: The pleural cavity was filled with fluid. [illegible] was normal in appearance, slightly emphysematous; weighed 660 [illegible] The right lung normal in [illegible] slightly emphysematous, and [illegible] grams. Gastro-intest[illegible] stomach was filled with gas. [illegible] were normal. The [illegible] 310 grams. The pa[illegible] normal [illegible] weight, 70 grams. [illegible] and congested, [illegible] and amyloid de[illegible] generating focus; [illegible] grams. Urin[illegible] weight, [illegible]. The right [illegible] was [illegible], the size of a hazel[illegible] nut. The [illegible] were normal; [illegible]

[illegible] Marine Hospital, Baltimore, Md., [illegible] December 27, [illegible]

History. Patient [illegible] and well; never hab[illegible] neither [illegible]

Present [illegible]—[illegible] in elevation; had the dise[illegible] condition [illegible] the latter one month ago. A[illegible] month ago was [illegible] for some time, after which [illegible] developed [illegible] pain in left chest, coupled [illegible] some fever and loss of appetite. [illegible] hospital, patient was in [illegible] general condition, [illegible] with marked dyspnœa and pain in the [illegible] most marked over left anterior [illegible]. Temperature, 39.4; pulse, 100. By [illegible] examination [illegible] the [illegible] of the chest to be somewhat dim[illegible] ished, dullness over the left chest, [illegible] coupled with diminished vesicular sounds. Cardiac dullness was increased, particularly in a lateral direction; the apex was heard a [illegible] murmur, blowing in character, and transmitted to the axilla. At the [illegible] cartilage was heard a softer systolic murmur. Over the aortic valves was heard a diastolic murmur. Visible pulsation was plainly evident in the peripheral vessels. Palpation showed a very pronounced Corrigan pulse. On auscultation of the carotids, subclavians, and femorals double murmurs were heard. Notwithstanding treatment the patient continued to grow steadily worse, the dyspnœa more pronounced, the pain more severe, and the weakness more marked. Death came suddenly at 6.35 p. m. December [illegible].

Necropsy (fourteen hours after death).—Post-mortem lividity slight. Rigor mortis marked. General nourishment good. Circulatory organs: Heart, weight, 610 grams; left ventricle markedly dilated; walls 1 to 2 cm. in thickness; right ventricle also enlarged and dilated; walls somewhat thinner than left. Both ventricles contained a post-mortem clot; both auricles were dilated, the right to twice its normal capacity; all the valves of the heart were incompetent; regressive processes presented at the aortic valve; the aorta and other vessels were normal. Respiratory organs: Right lung, weight, 1,170 grams; congested. Left lung, weight, 800 grams; somewhat congested, but not as much so as right; at the apex of this lung, near the anterior border, were four or five very small tubercles. Right pleural cavity contained 650 c. c. of serous fluid. The left pleural cavity contained 560 c. c. of fluid and presented a few slight adhesions in the mid-axillary line. The gastro-intestinal tract was normal with the exception of the stomach, which was dilated. Liver: Weight, 2,060 grams; congested. Kidneys: Right, weight, 205 grams; normal. Left, weight, 200 grams; cortex thickened; capsule adherent. Brain: Weight, 1,250 grams; dura mater slightly adherent along the central part of the median fissure.

W. C. [illegible]
G. P.

Mitral regurgitation.

J. S.; age, 18 years; nativity, Germany; was admitted to the United States Marine Hospital, port of San Francisco, Cal., July 20, and died August 2, 19[illegible]

History. Patient was under treatment at this hospital from August 19 to September 16, 1898, with a diagnosis of Bright's disease, granular kidney. He complained at that time of swelling of the feet and legs and dyspnœa on slight exertion. He also had ascites, and on August 27 was tapped and 12 liters of straw colored fluid withdrawn. Urine showed nothing abnormal. September 16 he was discharged and on September 17 was readmitted under the diagnosis of inflammation of liver, chronic. On October 17, 1899, was discharged improved. He was admitted again February 28, 1900, and diagnosis made of valvular disease of heart, mitral regurgitation. He complained of swelling of ankles and discomfort in region of stomach; was also troubled with dyspnœa on exertion. Abdomen distended and tense, area of heart impulse increased, and systolic murmur accentuated; was discharged improved May 9, 1900. Was admitted the last time on July 20, 1900, and diagnosis made of valvular disease of heart, mitral regurgitation. Complained of swelling of abdomen, ankles, and legs, and dyspnœa on exertion. Examination showed patient to be cyanotic and very weak; pulse rapid, quite feeble; abdomen distended; ankles swollen and œdematous; heart greatly enlarged, left border being about 5 cm. outside of nipple line; apex beat in [illegible] interspace 2 cm. outside mammary line. Mitral regurgitation murmur heard at apex; aortic second, entirely lost; pulmonic second, abnormal.

Patient was put on the ordinary treatment for mitral regurgitation with [illegible] of compensation. He was confined to his bed, put on a liquid diet, given digitalis

They show no nuclei, but scattered among them the darkly staining nuclear débris may be seen. The Malpighian bodies are in the same Diagnosis: Recent anemic infarction. Liver: In a very advanced anemic atrophy. In the center of the liver lobules small pools of stag may be seen. In such places the liver cells are entirely destroyed, to toward the periphery of the lobule the cells are merely small and At the periphery itself the cells are apparent Spleen: Cap thick and dense; otherwise normal. fairly dense. Malpighian bodies are a beginning hyaline degeneration markedly thickened. Pulp show of the pulp are mostly lymphocy ts are arranged in rows, bet plasma cell may be seen. Lym

June 2, hypodermics of Magendie's solution of morphia were given to allay ex-ment. June 3, stimulants were given, but at 2.30 a. m., next day, he died quie

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Necropsy (twenty hours after death).—Body well nourished; ankles and scrot œdematous; rigor mortis present. Brain: Weight, 1,370 grams; old le meningitis over vertex along longitudinal fissure, the membranes being firm adherent to cortex and the surrounding veins engorged. Heart fatty, especia on right side; Weight, 620 grams; chicken-fat clots in all cavities; left ventri cavity slightly enlarged and walls much thickened; aortic valves thickened a roughened and opening enlarged; mitral leaflets apparently normal, but open enlarged admits three fingers; aorta for first inch or two thickened and calca ous. Lungs both show hypostatic congestion and pleuritic adhesions; right lu hepatized at base; Weight, left lung, 660 grams; right 1,150 grams. Liver enlar and congested; Weight, 2,170 grams; gall bladder moderately full. Spleen norm Weight, 360 grams. Kidneys normal; Weight, left, 220 grams; right, 220 gra

G. U. U.

Mitral.

A. P.; age, 59; colored; nativity, Kentucky; admitted to United States Ma Hospital, St. Louis, Mo., May 13, 1901; died June 5, 1901.

History.—The patient first came to the hospital April 12, 1900, and was d charged improved April 17, 1900. He was also in this hospital from July 23, 19 to August 20, 1900, from February 5, 1901, to February 23, 1901, from March 1901, to April 12, 1901, and from May 13, 1901, to June 5, 1901, the date of death. On all these occasions he suffered from symptoms due to the dise condition of the mitral valve. He stated that he had an attack of rheumatism 1874 which lasted ten days, and that he had had slight rheumatic pains ever sin He had never had a venereal sore, but had had gonorrhea several times. All relatives were dead and he did not know what disease had caused the death his parents. The symptoms which troubled him most was dyspnœa, wh began about fifteen days before he first came to the hospital. He also had a sli cough and occasionally pains in his chest and abdomen. He had had the co

VALVULAR HEART DISEASE.

J. S.; age, 54; nativity, Scotland; admitted to United States Marine Hos at Stapleton, port of New York, N. Y., January 18, 1901; died January 25, 19 Height, 5 feet 6 inches; weight, 160 pounds.

Family history.—Most members of family long-lived. Father suffered m from rheumatism. One brother died of miliary tuberculosis.

Previous sickness.—Had typhoid fever years ago, also an attack of gonorrh Has used alcohol and tobacco. Patient has been in this hospital ten times first three for rheumatism, and the last seven for heart disease and rheuma In November, 1898, he came here with symptoms of heart disease of three we duration, consisting of shortness of breath, edema of extremities, cough, and turbed stomach. During his stay he had occasional slight rheumatic attack various joints. The cardiac signs were then described as enlargment, and a systolic murmur at the apex, loud and localized. There were at first sign pulmonary congestion and albuminuria, these later subsiding. There were signs of pleurisy. After a stay of two months he was able to go out. The cessive visits resemble the first, differing only in the severity of the sympto Under rest and appropriate medication compensation became reestablished, to fail again on the resumption of active life. At a physical examination October, 1900, the heart was found enormously enlarged, its action extre irregular; there was a loud mitral murmur occupying the second sound and als aortic murmur of indeterminable occurrence with reference to the sounds. S of an old pleurisy were found on the right side of the chest, and even some a effusion was suspected, although no fluid was obtained upon aspiration. T urine was but slightly albuminous and no casts were present. There was extre dropsy, cough, dyspnœa, and gastric disturbance.

Upon leaving here, at his request, on January 7, 1901, he was warned as to t danger of his attempting hard work again.

When brought to the hospital in the ambulance the last time, January 18, condition was very bad; he was apparently in extremis. There was great ede of the legs, orthopnœa, enormous distention of the cervical vessels and cyano Bloody mucus was coughed up at intervals. The heart was apparently m enlarged and its action was very irregular. To-and-fro murmurs were everyw audible, and pulsations at the wrist did not correspond to the heart beats, only few of the latter reaching it. Under the influence of rest he improved sligh for a few days, then sank into a stuporous condition, cyanosis increased, d blood was coughed up but not expelled from the mouth, catheterization bec necessary, and he died without regaining consciousness. His muscular and s pose tissues did not suffer much. There was no fever during his last stay.

Medication was symptomatic and the employment of such remedies as digital strophanthus, spartein, nitroglycerin, salicylic acid, potassium iodide, elaterin etc., when indicated.

Necropsy (thirty hours after death).—Body that of a male, apparently abou years of age. Rigor and post-mortem lividity present; body well nourished muscular; pupils evenly and moderately dilated; legs somewhat edematous. incision considerable subcutaneous fat found; skeletal muscles well developed of a dark color. Mediastinum. Great increase of area occupied by the heart abnormal separation of the anterior edges of the lungs. Thymus remains found. Pericardium contains an abnormal amount of clear yellow serum: surface is smooth and white. Heart is very large. Opened *in situ* and both tricles found to be dilated, the right very markedly. The right ventricle cont fluid and clotted blood, the left is practically empty. On removing the heart the aortic and the pulmonary valves are found insufficient to the hydrostatic The right auriculo-ventricular orifice admits three fingers easily; the mitral or barely admits one finger, is of crescentic shape, and is narrowed by the contract and adhesion of the valve leaflets. The leaflets of the aortic valve are much thi ened, those of the pulmonary and tricuspid valves to a less extent, and those the mitral valve enormously thickened and the seat of numerous calcare deposits. Myocardium, especially of the right ventricle, much reduced in thi ness. Heart weighs 590 grams. Left pleural cavity is free from abnormal f or adhesions. Right pleural cavity is almost entirely obliterated by old adhesi The lungs resemble each other in being edematous and congested, floating in w and exuding frothy blood and serum from the cut surface. Omentum contai large amount of fat. Spleen weighs 240 grams; is firm and dark colored. kidney weighs 240 grams, is firm, cuts a little hard, and presents on cut section surface with fairly distinct markings, light-colored striæ being visible in mids, and the cortex of nearly normal thickness. Right kidney weigh

A. M. S.
G. W. S.

kidney: Weight, 140 grams. Perinephritic fat is scanty. The organ is flab and pale. Near the outer border is a small shallow depression with a white ba The cut surface is pale and the markings indistinct. The cortex is thickened. I one of the pyramids, near the apex, is a white spherical body, 1 mm. in diame Right kidney: Weight, 155 grams; practically the same as the left. Gall bladd is moderately distended with dark-brown fluid. Liver: Weight, 2,000 gram slightly enlarged; surface smooth; capsule of normal tension. The surface pale with blood-stained areas; consistency normal. White spot, 2 cm. in diame is seen on the upper surface of the right lobe. The liver is pale on section. shows evidence of fatty change. Blood exudes from the cut surface. Intesti are moderately distended with gas, otherwise normal. Bladder is slightly d tended with urine. Dura mater shows evidence of recent inflammation along t longitudinal sinus. There is a small amount of fibrin on the pia mater of th superior surface of the cerebrum. Brain: Weight, 1,420 grams. Is very so and tears easily, probably from post-mortem change. On section it shows n abnormality.

R. L. W
J. M. G.

Aortic and mitral.

G. W. P.; age, 44; nativity, Scotland; admitted to the United States Mar Hospital, Boston, Mass., March 24, and died July 10, 1900.

On examination, the following points of interest were revealed: Patient suff from dyspnœa, which is increased on exertion, pain over cardiac region, insomn dizziness, headache, and palpitation of the heart. A physical examination show on inspection, a diminished inspiration with a prolonged expiration, also a distin carotid pulsation. On palpation the apex beat is stronger than normal and d placed downward and to the left. Can also feel a distinct auricular thrill ov the third and fourth left intercostal spaces. Patient has a distinct Corrigan pul On percussion there is an increased area of cardiac dullness, both relative a absolute. On auscultation there is a loud, rough, and blowing diastolic mu mur heard over the aortic area and transmitted along the left border of th sternum. There can also be heard a soft blowing systolic murmur over th mitral area, transmitted toward the axillary line. Patient was put to bed a given heart tonics.

On June 15 the patient began expectorating blood and presented a very anx countenance; there was some œdema of the feet and legs. On July 10 patie died from heart failure.

Necropsy (thirteen hours after death).—On inspection the feet and legs we very œdematous, pupils equally dilated, rigor mortis present only in the low extremities, post-mortem lividity marked, mouth filled with dark frothy blo Circulatory organs: Heart three times its normal size, the walls slightly hyp trophied and shows some fatty degeneration. The ventricles and auricles we very much dilated. Weight of heart was 500 grams. The valves, both aort and mitral, were incompetent. The arteries were normal. Respiratory organ The nose, larynx, and trachea were normal. The left lung was congested a weighed 570 grams. The right lung was congested and weighed 1,100 gram The pleural cavity and pleura were normal. Gastro-intestinal tract: The tongu pharynx, œsophagus, stomach, and intestines normal. Liver was nutmeg a appearance and weighed 1,400 grams. The gall bladder was filled with bile. Th spleen weighed 150 grams. The pancreas weighed 100 grams. The kidneys we normal in appearance, the left weighed 180 grams, the right weighed 200 gram The brain was normal and weighed 1,250 grams.

F. I.

Mitral and aortic.

G. O.; age, 37; nativity, Norway; admitted to the United States Marine Ho pital, Boston, Mass., October 24, 1898; died July 4, 1900.

History.—When admitted to this hospital, it was found on examination that h had been a sufferer for several years from dyspnœa, fainting spells, dizzin palpitation of the heart, and had on several occasions expectorated blood. H gave a history of having had quite a severe attack of rheumatism some y back. A physical examination was made and the following points observe

On inspection patient was anæmic; had lost considerable flesh; [illegible] marked dyspnœa, increased on the slightest exertion, also s[illegible]ng pul[illegible] carotid arteries. On palpation there was a distinct v[illegible]h[illegible]

Aortic and mitral.

J. H. G.; age, 23 years; nativity, Maryland; admitted to the United St Marine Hospital, Baltimore, Md., December 22, 1900; died December 27, 190

History.—Father dead; cause unknown; mother living and well; never had brother or sisters.

Personal history.—Tobacco and alcohol used in moderation; had the diseas childhood, pneumonia (right), and gonorrhea, the latter one month ago. Ab month ago was exposed to continued bad weather for some time, after which soon developed two chills and had rather severe pain in left chest, coupled w some fever and loss of appetite. On admission to hospital, patient was in p general condition, decidedly weak and with marked dyspnœa and pain in c most marked over left anterior portion. Temperature, 39.4; pulse, 100. P ical examination showed the movements of the chest to be somewhat di ished, dullness over the left chest, posterior, coupled with diminished vesic sounds. Cardiac dullness was increased, particularly in a lateral direction the apex was heard a systolic murmur, blowing in character, and transmi to the axilla. At the ensiform cartilage was heard a softer systolic murm Over the aortic valves was heard a diastolic murmur. Visible pulsation plainly evident in the peripheral vessels. Palpation showed a very pronou Corrigan pulse. On auscultation of the carotids, subclavians, and fem double murmurs were heard. Notwithstanding treatment the patient contin to grow steadily worse, the dyspnœa more pronounced, the pain more severe the weakness more marked. Death came suddenly at 6.35 p. m. December

Necropsy (fourteen hours after death).—Post-mortem lividity slight. R mortis marked. General nourishment good. Circulatory organs: Heart, we 610 grams; left ventricle markedly dilated; walls 1 to 2 cm. in thickness; r ventricle also enlarged and dilated; walls somewhat thinner than left. Both v tricles contained a post-mortem clot; both auricles were dilated, the right twice its normal capacity; all the valves of the heart were incompetent; r tative processes presented at the aortic valve; the aorta and other vessels w normal. Respiratory organs: Right lung, weight, 1,170 grams; congested. L lung, weight, 800 grams; somewhat congested, but not as much so as right; at apex of this lung, near the anterior border, were four or five very small tuber Right pleural cavity contained 650 c. c. of serous fluid. The left pleural c contained 560 c. c. of fluid and presented a few slight adhesions in the m axillary line. The gastro-intestinal tract was normal with the exception of stomach, which was dilated. Liver: Weight, 2,060 grams; congested. Kidn Right, weight, 205 grams; normal. Left, weight, 200 grams; cortex thickened capsule adherent. Brain: Weight, 1,250 grams; dura mater slightly adh along the central part of the median fissure.

W. C. B
G. P.

Mitral regurgitation.

J. S.; age, 18 years; nativity, Germany; was admitted to the United St Marine Hospital, port of San Francisco, Cal., July 20, and died August 2, 190

History.—Patient was under treatment at this hospital from August 19 to S tember 16, 1898, with a diagnosis of Bright's disease, granular kidney. He c plained at that time of swelling of the feet and legs and dyspnœa on sl exertion. He also had ascites, and on August 27 was tapped and 12 liter straw-colored fluid withdrawn. Urine showed nothing abnormal. September he was discharged and on September 17 was readmitted under the diagnos inflammation of liver, chronic. On October 17, 1899, was discharged impro He was admitted again February 28, 1900, and diagnosis made of valvular di of heart, mitral regurgitation. He complained of swelling of ankles and di in region of stomach; was also troubled with dyspnœa on exertion. Abd distended and tense; area of heart impulse increased, and systolic mur accentuated; was discharged improved May 9, 1900. Was admitted the last t on July 20, 1900, and diagnosis made of valvular disease of heart, mitral regu tation. Complained of swelling of abdomen, ankles, and legs, and dyspnœ exertion. Examination showed patient to be cyanotic and weak; pulse rapid quite feeble; abdomen distended; ankles swollen and œde tous; heart g enlarged, left border being about 5 cm. outside of nipple li apex beat in murmur heard interspace 5 cm. outside mammary line. Mitral regurgit mal. apex; aortic second, entirely lost; pulmonic second, about

Patient was put on the ordinary treatment for mitral r tation with of compensation. He was confined to his bed, put on a li diet, given d

[illegible]

y thick, fairly dense. Malpighian bodies are [illegible]

show a beginning [illegible]

is markedly [illegible] an intense stagnation [illegible]

lls of the pulp [illegible]

roblasts are [illegible]

mal plasma [illegible] that

their capillaries are distended with stagnated blood. Some of the alve filled with coagulated œdematous fluid. Others are filled with extrav blood. The specimen was taken from the base of the lung, where the hyp congestion was most marked.

M. E.
R. L. W
J. M.

Sprain of back, valvular disease of the heart, aortic, vegetations.

T. S.; age, 23; nativity, Georgia; admitted to the United States Marin pital, Evansville, Ind., January 24, 1901; died January 27, 1901.

History.—On January 21, 1901, he was trying to get the hoisting engine boat off "dead center" by pulling on the fly wheel. The engine started sudden jerk and gave the patient a severe jerk and wrench. The pain and ness of the muscles of his back, arms, and right lumbar region increased, be when the boat returned to this city on January 23, 1901, he went to his On the next day he entered the hospital. The muscles of the regions men above were quite stiff and painful. His heart trouble bothered him not In fact, it was a typical case of compensatory hypertrophy, and there were jective symptoms of heart trouble complained of. On the 26th he had a rheumatic pain in both ankles, but sodium salicylatis relieved this pain. appetite was good and bowels were regular. On the morning of the 27th better, and during the day was up and about in an invalid chair. In the noon after being in the smoking room talking and smoking a cigarette for a hour or so he suddenly fell out of his chair and was dead before medical aid be given him.

Necropsy (nineteen hours after death).—Body well nourished. Pupils Rigor mortis well marked. Heart: About 100 c. c. clear fluid was found in cardial sac. Heart enlarged. External veins of heart engorged. Left hypertrophied. Aortic valves had vegetations along their edges. Other normal. Heart weighed 567 grams. Right lung: Weight, 387 grams; Left lung: Weight, 322 grams; normal. Liver: Weight, 1,760 grams; congested, otherwise normal. Spleen: Weight, 185 grams; normal. Pa Weight, 112 grams; normal. Right kidney: Weight, 243 grams; normal. kidney: Weight, 220 grams; normal. Other organs and tissues normal.

J. H. C.

Acute lobar pneumonia.

J. R.; age, 50; born in Tennessee; colored; admitted to the United States Hospital, Louisville, Ky., January 17; died January 21, 1901.

History.—Taken sick suddenly on the 13th instant; does not think had a chill; felt weak and badly and pain in right side; previously had good health. Temperature on admission, 39.6; pulse, 160; small, weak compressible. Respiration, 41; superficial in character; complains of pain both sides of chest and in front; continuous but not severe; increased by ing. Coughs little; is dull and somnolent. Examination shows upper lobe right lung consolidated, with coarse bronchial breathing and moist râles lower lobe consolidation is also progressing, as evidenced by crepitant râles tympanic resonance. Over the left lung râles of varying character, all are heard. No part of it is consolidated. The lower lobe soon became in the condition as the upper, and all the bad symptoms increased, the patient after three days. Albumenuria from the beginning.

Necropsy (six hours after death).—Body exceedingly spare, but fairly muscled; cutaneous fat almost entirely absent; rigor mortis moderate. men: Omentum and abdominal cavity free from fat; intestines empty; extends 6.5 cm. below the ribs; deeply congested; passive; weighs 1,400 Gall bladder moderately full. Appendix: Nine cm. in length; extends ward into the pelvis; no adhesions; has meso-appendix. Mesenteric glands enlarged. Stomach empty. Pericardium adherent, universally so. absolutely no pericardial cavity. Condition of long standing. Right dialated and full of blood clots; left contracted, with the usual fibrinous Valves intact. Weighs 240 grams. Not a particle of fat on it. Right lung erally adherent; practically all of it is in a state of red or gray hepatiza small portion at the base in front is good; weighs 2,140 grams. Left lung: adhesions to pleura, and some hypostatic congestion of posterior portion; wise normal. Spleen small and dry; 110 grams. There is an entire absence

[illegible] Right kidney [illegible] Pancreas normal and [illegible]

H. R. [illegible]
M. K. G.

[illegible]

R. K. [illegible] United States Marine Hospital [illegible]

[illegible]

[illegible] Weight [illegible] grams [illegible] the base of the lung [illegible] lung [illegible] grams [illegible] less [illegible] weight [illegible] grams [illegible] the surface [illegible] punctate [illegible]

lular tissue about kidneys œdematous. Bladder contains a few ounces of ur
Stomach and intestines slightly distended with gas. Appendix long; cont
soft yellow material in small amount. Mesenteric glands not enlarged. P
creas present no abnormality. Liver, large; weighs 2,400 grams. Small hem
rhagic infarct on surface of left lobe. Its cut surface is slightly pale
yellowish in hue. Gall bladder about one-third full. No bile could be squee
through the duct, although no obstruction was visible. Brain and spinal c
not examined.

A. M. S
P. H. F

Acute lobar pneumonia.

D. H. (colored); age, 38; nativity, Kentucky; admitted to United States Ma
Hospital, Louisville, Ky., February 23, 1901, at 11.30 a. m., and died at 6.30 p.
the same day.

History.—Was in an unconscious condition when admitted and never regai
consciousness; temperature, 39.40 C.; pulse, 160; very hard to count; the r
lung consolidated; left, free; respiration, 40 to 45 per minute; very shallow.

Autopsy (twenty hours after death).—A negro, medium size, spare, fairly
nourished. Thorax: Pericardium contains 75 c.c. clear fluid. Heart in diast
the coronary veins distended with blood, as are the auricles and ventricles.
right ventricle contains a large white clot. Weight of heart, 900 grams.
right lung is covered by a recent, soft, fibrinous exudate, and is entirely cons
dated save for a small area at the base. The consolidation consists of gray h
tization above and red hepatization below. Weight of right lung, 1,300 gra
The left lung is engorged with blood, not adherent and not consolidated.
weighs 600 grams. Abdomen: The liver is enlarged and congested, and we
2,500 grams. The gall bladder was empty. Vermiform appendix, large,
has meso-appendix, points upward and across the brim of the pelvis. The o
organs were not examined.

H. B.
M. K.

Influenza; lobar pneumonia; myocarditis.

T. L.; age, 32 years; native of Kansas; admitted to the United States Ma
Hospital, Cairo, Ill., January 10, 1901; died January 22, 1901.

History.—This patient had a chill five days ago, and has had chilly sensat
since then at various times. He complains of pains in back and limbs, part
larly in kneejoints, but there is no swelling of latter. Complains also of anore
nausea, and vomiting. Has temperature of 40.4° C. Says he has no pain a
chest. Has headache. He notices particularly an overpowering sense of w
ness. Given calomel in "broken doses," followed by saline. Ordered sodii
zoas .31 gm. q. 3 h. On evening of January 11 his face was flushed, respira
increased, pulse accelerated, full, and strong. Short cough, sputum blood stai
No râles audible. Given small doses of aconite and belladonna with spts. æth
nitrosi during the night. Has had no chill since admission. More marked
dence of pneumonia on morning of January 12. Upper and middle lobe of r
lung involved. No valvular lesion of heart; no pericarditis. Quality, rate,
rhythm of pulse out of proportion to lung involvement. Heart laboring und
Myocardium probably acutely inflamed. ℞ tinct. digitalis .62 cc. q. 3 h. ℞ p
opii .06 gm. at bedtime. Flaxseed poultice over heart, renewed q. 3 h. day
night.

January 14.—Pulse 138; weak, irregular, and intermittent. Slept but li
℞ morphinæ sulphas .01 gm. at bedtime instead of pulv. opii.

January 15.—Pulse 88 this morning; stronger, more regular; still intermit
although less often than heretofore. Digitalis discontinued and strych
sulph. ordered, that there may be benefit from respiratory as well as ca
stimulation.

January 16.—Pneumonia crisis passed. Temperature normal this morn
Pulse 86–93 all day. ℞ podophyllum resin .015 gm. at one dose. ℞ malt ext
16 cc. t. i. d.

January 17.—Feels very comfortable. Doing nicely. Expectorant ordere

January 19.—Pulmonary condition now of secondary importance. Strych
is discontinued and tinct. digitalis ordered again, .48 cc. q. 3 h., that heart mu
may have as much rest as possible. Has been feeling very well all day.

January 20.—Constipated. ℞ pulvis effervescens compositus, ss Sig. a
repeated after an hour if necessary. Result satisfactory.

January 22.—Temperature normal and pulse improved last two days.
feeling and looking well and comfortable at morning sick call. Shortly

[illegible]

[illegible] normal, weight of right, 130 grams [illegible] normal weight, 135 grams.

G. M. M.

Lobar pneumonia.

R. T.; age, 26 years; nativity, Tennessee; admitted to United States M Hospital, Memphis, Tenn., April 1, 1901; died April 6, 1901.

History.—Was exposed in rain all day on March 30; on 31st had severe followed by fever, pain in left side, cough, and expectoration of blood-str sputum; some diarrhea; no appetite. On full inspiration sharp pain in left dullness on percussion over left lung, with bronchial breathing. Was tro with hiccough almost from beginning of attack, which was difficult to relie

Necropsy (sixteen hours after death).—Body well nourished; post-mortem ity. Veins of meninges of brain dilated and filled with blood, and memb adherent along both sides of great longitudinal fissure. Weight, 1,260 g Left lung: Weight, 1,800 grams; pleuritic adhesions firm both to chest wal diaphragm; lung in stage of commencing gray hepatization. Right lung: We 590 grams; hypostatic congestion posteriorly. Liver normal; weight, grams. Heart: Large chicken-fat clots in all cavities, especially large on side; weight, 350 grams. Spleen normal; weight, 240 grams. Pancreas no weight, 60 grams. Right kidney normal; weight, 190 grams; left, weight grams.

G. M.

J. T. (negro); age, 23 years; nativity, Pennsylvania; admitted to marine Mercy Hospital, Pittsburg, Pa., May 18, 1901; died May 23, 1901.

History.—Patient was taken from his boarding house to the hospital i ambulance. Stated that he had been sick for four days. Sickness follo severe "cold," beginning with a chill and accompanied by a severe cough, pain in the right side of chest. On admission to the hospital his temper was 40° C., his pulse 125 per minute and very feeble, his respiration 52 per mi Both lungs gave a dull percussion note all over, tactile and vocal fremetus l greatly increased. Bronchial breathing was marked over each lung anter and posteriorly. Under powerful stimulation his condition improved, the res tory rate being reduced by the third day to 28 per minute; pulse, 100 per mi stronger and fuller. Temperature then 38° C. This improvement continue a day, when the temperature rose, and with it the respiratory and pulse Patient became weaker and weaker, dying at 7 a. m. May 23, 1901. At no tim he complain of pain in his abdomen or of diarrhea. His bowels were m regularly, and there was no abdominal tenderness when first examined.

Necropsy (nine hours after death).—Body that of a man 1.8 meters tall; w about 72 kilograms. There is no post-mortem lividity, nor is rigor mortis developed. Muscular development poor. Very little subcutaneous fat. pleural cavities are obliterated by recent adhesions. The right lung weighs grams. It feels hard throughout and on section looks like beefsteak, l oozing. The left lung weighs 1,120 grams. It is not quite so solid as is the r but is infiltrated with pus about its base. The apex is slightly crepitant. lungs sink in water. Heart the size of patient's closed fist. It is stopp diastole. Valves competent. The liver is slightly enlarged and congested, the spleen. The kidneys, pancreas, bladder, and brain present nothing wort note. The vermiform appendix is whitish, atrophied, flattened. It is 8 long, and on section its walls are extremely thin, the lumen barely admittin head of a pin. In the ileum, about 10 inches from its union with the cæcu seen a retrograde intussusception fully 3 inches in extent. The intestin that point seems to be completely obstructed. There is no inflammation or ul tion of the intestines involved. There is no fecal concretion at this point. there any accumulation of feces in the jejunum or upper ileum.

R. C.

Influenza; pneumonia, lobar.

G. M.; age, 56; nativity, New York; admitted to the United States Marine pital, Boston, Mass., January 16, 1901; died February 3, 1901, at 1.30 p. m.

History.—On entrance patient complained of cold which he had had for weeks; within past few days had been suffering with pain in limbs, head cough, and slight chills. Temperature afternoon of admission was 38° C. E nation revealed an occasional dry râle over chest anteriorly, with slight c A diagnosis of influenza was made. Within twenty-four hours patient's te ature was normal and ranged between 36.6° C. and 37° C. until January 22, it showed slight rise. Pains in limbs disappeared and cough was slight. O evening of January 22 there was noticed a rise in his temperature of .2° C., a

May [illegible] Patient slightly delirious last night and is very restless this mo[illegible]
May [illegible] Dullness [illegible] over entire right lung. Temperature [illegible] [illegible] and respiration [illegible]. The heart sounds are loud and clear. The [illegible] sound over the pulmonary artery is accentuated.
May [illegible] No change noted since last note.
May [illegible] Temperature [illegible] C., pulse [illegible], weak and dicrotic; respiration [illegible]
Patient died 5.30 [illegible] m. May 31.

Necropsy (eight hours after death).—Height, 1.78 meters. Post-mortem [illegible] not apparent; [illegible] rigor mortis marked. General nourishment [illegible] well-developed, muscular man. Pupils slightly dilated. Heart: Weight [illegible] opening, [illegible] grams; valves competent, otherwise normal. Pericardial sac normal, contains normal fluid. Left ventricle contains firm coagula. The chambers are distended with firm, tenacious coagula, which extend into the [illegible]. Nares, larynx, and trachea normal. Lungs: Left, weight 600 grams, [illegible] pleural cavity normal; right, weight 1,9[illegible] grams. The entire lung is consolid[illegible] The tissue is reddish-brown color, firm, and airless. On section the surface is friable, and granular; pleural cavity contains a small quantity of blood-st[illegible] serum, and is adherent to chest wall laterally. Gastro-intestinal tract: To[illegible] pharynx, and oesophagus normal. Stomach contains coagulated milk. [illegible] mucous membrane is gray in color, with points of ecchymosis. The wall somewhat thickened and the rugæ prominent and enlarged. Pylorus and [illegible] orifice normal. Small and large intestines distended with gas; re[illegible] normal. Liver is enlarged and somewhat sclerosed; color, light brown; w[illegible] 3,250 grams. Gall bladder and ducts normal. Pancreas, weight 60 gr[illegible] The gland is somewhat firmer than normal; probably an overgrowth of the fi[illegible] tissues. Kidneys: Left, weight 153 grams; and right, weight 152 grams. [illegible] kidneys congested. Pelvis and ureters normal. Bladder, urethra, and pr[illegible] normal. Suprarenal bodies: Left, weight 4.5 grams; right, weight 4.5 gr[illegible] color, reddish-yellow. Spleen, weight 175 grams, normal. Scalp and skull [illegible]mal. Membranes of brain and the brain normal. Brain, weight 1,424 gr[illegible] Other organs not examined. Microscopical examination made of specimens [illegible] lung, liver, kidney, and pancreas (by C. R. G.). The lung showed its al[illegible] filled with an exudate of epithelial cells and fibrin. The lung tissue can sca[illegible] be demonstrated. No pneumococci were found with Gram stain. The ki[illegible] The epithelium of many of the tubules was desquamated; the tubules filled [illegible] granular detritus. In several places we find heaps of round, inflammatory [illegible] The blood vessels are engorged. The liver shows collection of inflammatory [illegible] around vessels. There is a slight increase of connective tissue. The pan[illegible] shows some increase of connective tissue.

J. B.

Pneumonia; purulent pericarditis.

M. H. S.; age, 31; nativity, United States; occupation, oysterman; admitt[illegible] United States Marine Hospital, Baltimore, Md., March 8, 1901; died March 16.

Family and personal history negative. Present illness started March 6 [illegible] stitch-like pain at the lower border of ribs on left side. Aggravated by [illegible] inspiration; then followed a feeling of chilliness and slight cough. This c[illegible] tion continued until patient was admitted to hospital, although feeling grad[illegible] worse each day.

Physical examination.—General condition apparently good. Expansio[illegible] chest on left side was diminished somewhat. Auscultation shows a slight [illegible] chial breathing and a to-and-fro friction rub at lower border of left lung. [illegible] perature 39 C.; pulse 92; respirations, 40. On March 13 the patient h[illegible] profuse perspiration, followed by a fall in temperature from 39.2 to 36.8 [illegible] ceeding this the patient complained of intense pain over left chest; the pulse im[illegible] diately became weaker, and three hours later the temperature was 38.6 [illegible] delirium marked. March 12 the patient has signs of consolidation in lower [illegible] tion of left lung; the following day the expectoration was rusty. On the 14th [illegible] pulse was very weak, the respiration more shallow, and the delirium w[illegible] Temperature then went to 41.2 C., but was reduced by several sponge b[illegible] which also seemed to better the general condition slightly. March 16 the pa[illegible] became continually weaker, and death occurred at 8 o'clock.

Necropsy (six hours after death). Height, 5 feet 10 inches. General nou[illegible] ment good. Pupils equal and slightly dilated. Post-mortem lividity and [illegible] mortis marked. Heart: Weight, 285 grams; anæmic; all valves competent. [illegible] cardial sac thickened; contained 200 c. c. purulent fluid. Nares, larynx, and [illegible] chea normal. Lungs: Left, weight 1,235 grams. Whole lung presented sig[illegible]

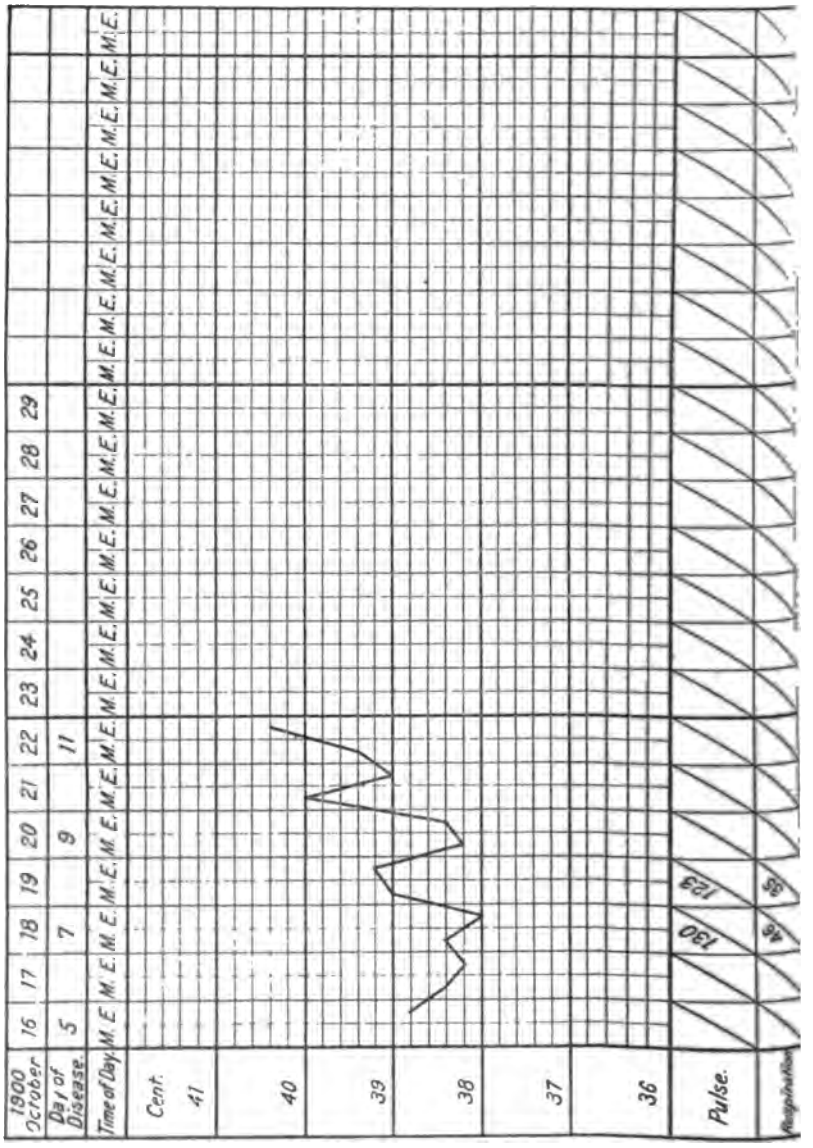
[illegible]

W. C. B.
E. W. E.

[illegible] OF MR. [illegible] FOLLOWING OPERATION

[illegible]

greatly augmented by each inspiration and expiration. In a few hours there s in a painful, suppressed cough, which was accompanied by scanty, blood-stain expectoration. The first sputa examined showed the characteristic rusty ting pneumonia, and were so visc their container could be inverted wit spilling them. Physical examination revealed dullness over the base of b lungs, posteriorly, with bronchial breathing and crepitant and sometimes sonor



and moist rales. During the night following the day of his admission the patie became quite delirious. Urinalysis revealed the presence of a heavy cloud o albumen upon boiling, and the microscope showed a large number of hyaline a coarsely granular casts. The urine was also quite scanty in amount. Despite a treatment, the physical signs became more marked; the patient sank deeper in his delirium, and the urine still continued scanty. Treatment consisted of fr stimulation with whisky, strychnine, local applications, and food. On the 5

Chronic colitis; arterio-fibrosis; pneumonia, acute lobar.

C. P.; age, 40; nativity, Norway; last employed on schooner *John C. Beach* Admitted to United States Marine Hospital, Stapleton, Staten Island, August 1900; died November 14, 1900.

Family history.—Negative.

Past history.—When 18 years of age was ill for six months. Complained t of pain in stomach, which was relieved by eating, of anexoria, emesis, etc. E years ago, while in New York, had remittent fever and has had two or th attacks of malaria since. Had rheumatism, gonorrhœa, and hard chancre.

Present history.—Has been sailing along the coast of Florida for many ye For past two years had suffered with pains in stomach, which became so se and were accompanied by such general weakness that he left his vessel July present year and has been ashore since. Pain becomes intensified three or f hours after eating, is sharp and cramp-like in character, and is usually acc panied with desire to go to stool. Although at times constipated, as a rule i diarrhea, the stools being fluid, small in amount, and are not attended with a tenesmus. Passes slight amount of blood at times. Has eructations of gas a acid food. On exertion suffers from dyspnœa, vertigo, and headaches.

Physical examination.—General condition poor, is anæmic and emaciat Chest negative. Abdomen flaccid. On palpation considerable gurgling and t derness elicited. Tenderness most marked along the transverse colon, especi in the epigastric region, where a tumefaction may be mapped out which is m able upward and downward and transmits the aortic impulse. On auscultat over this mass a bruit is heard; on displacing mass from aorta an impuls bruit made out. The superficial arteries show advanced atheromatus chang Treatment: Milk diet, intestinal antiseptics, and astringents. Temperature admission, 39.2; respirations, 28; pulse, 96.

October 20, 1900.—General condition not improved. Has lost considerable fl Diarrhea persists. Stools fluid, small in amount, of greenish color, and fe Temperature and abdominal symptoms much the same. Appetite good. Te perature became normal the third day after admission and remained so for five six days afterwards. Has been complaining of cough and has muco-purul expectoration. Examination of lungs shows dry stage of bronchitis. Has be receiving increasing doses of potassium iodide, but they have been discontinu Given spray of wine of ipecac and water.

October 22, 1900.—Had chill at 11 p. m., followed by fever; temperature go up to 40.6; pulse 96; respirations 20. Given quinine sulphate 0.6 t. i. d.

October 24.—Temperature normal yesterday; pulse 92; respirations 20; diarr same. Coughs considerably, with free muco-purulent expectoration. Is ve weak. Has pain in right side of chest, especially when coughing.

October 26.—Temperature to-day and yesterday ranged around 38.5; pulse fr 100 to 120; respirations around 25. Coughs considerably, especially during t night. Nitroglycerin 0.0006 every two hours. Codeine sulphate 0.24; sin hydriodic acid 20; water to make 100. Signa, 5 c. c. every four hours and su positories of opium, iodoform, and tannic acid.

November 5, 1900.—General condition much worse, more emaciated, nervo and anæmic. Diarrhea lessened somewhat. Cramp-like pains and tenderness so severe. Tumefaction in abdomen lessened apparently. Coughs considerab expectorating considerably, expectorations being bronchorrheal in charac Examination of lung shows consolidation over right side. Temperature ran from normal to 38.5.

November 13, 1900.—Condition much worse. Has been receiving stimulan constantly. Diarrhea about the same as last noted. Cough still troublesom with profuse expectorations.

November 14, 1900.—Despite increased stimulation he gradually sank, p monary œdema setting in, and he died at 9.55 p. m.

Necropsy (sixteen hours after death).—Body of a male, aged about 40 yea Considerably emaciated. Rigor mortis fairly marked. Slight suggillations dependent portions. Eyes glazed. Pupils moderately dilated. Anterior me astinum normal. Thymus not found. Pericardium in normal position; conta about 25 c. c. of clear, straw-colored serum. Walls smooth and glistening. Hea Left ventricle arrested in systole; right contains slight amount of fluid blood a some clotted blood. Right auricle contains considerable clotted blood, as do pulmonary artery. Aortic valve competent to water test. Some calcareous dep its at bases of valve flaps. Mitral orifice admits two and one-half fingers. Va edges considerably thickened with calcareous deposits. Heart muscle about a

took change for the worse, pulmonary œdema set in, and despite stim rapidly grew worse, and he died at 6.30 p. m.

Necropsy (twenty-one hours after death).—Rigor mortis well devel mortem suggillations marked, pupils moderately and evenly dilate amount of subcutaneous fat. Anterior mediastinum contains fat. Pe normal in appearance and contents. Heart: Left ventricle arrested and empty; right arrested in diastole and contains clotted blood. V great vessels show no abnormalities. Heart muscle fairly firm; co deposit of fat on surface; weight 550 grams. Left pleura: Surfaces one large fibrous adhesion at base of lung. Right pleura: Many adl diaphragmatic and parietal surfaces. Left lung: Weight 1,440 gra lobe in condition of red hepatization; lower lobe congested and œ Right lung: Weight 900 grams; all lobes congested and œdematous, the lowest one. Omentum contains much fat. Spleen: Weight 140 gr sents no gross abnormality. Left kidney: Capsule strips easily. Two l and several smaller ones visible externally. Cut section shows indisti ings, grayish appearance of cortex and medullary bodies. Right kidne 295 grams; resembles left in findings. Bladder contracted; mucous meml gested and roughened. Rectum, stomach, duodenum, and intestines tive. Liver: Weight 2,950 grams; tissue friable; cut section has a appearance. Brain not examined, as friends claimed body.

J
G

Pneumonia, lobar.

J. K.; male; white; age, 56 years; admitted to United States Marine Detroit, January 20, 1901; died January 24, 1901.

History.—The patient, a fireman on the U. S. revenue cutter *Fessenden*, he had been a hard worker and a hard drinker, had never previously suff any severe sickness. His family history could not be ascertained. On th of January 19, after being exposed to the cold on deck for two hours, he denly seized with nausea and vomiting. He had no recollection of a c retired to his bunk, feeling very dizzy and feverish, and in a few hour distressed with a severe pain in the left infra mammary region, which v aggravated by a dry, hacking cough. The next morning he was remo hospital in the ambulance. His temperature was then 39° C., pulse 118, bounding; his cheeks were red and flushed, facies showed expression o and apprehension; tongue white and furred; cough was pronounced an abundant, frothy, and tinged with red. On percussion dullness was eli left lower lobe, and hyperresonance over right lung and remainder of le cultation revealed numerous fine râles in lower left lobe, with exagge prolonged respiratory sounds over balance of both lungs. Examinati sputum showed Fraenkel's pneumococcus, numerous streptococci and cocci, together with structural elements. Not much change in the pati dition was noted until the morning of the 22d, when signs of œdema of were manifest; respiration became rapid and labored, while the pulse at the same rate (118), but weaker. On the evening of the 23d he was c. c. of blood being withdrawn, after which he showed some apparent ment until 3 a. m. of the 24th, when pulse and respiration rapidly fail came cyanosed, and at 5 a. m. died.

Necropsy (twenty-six hours after death).—Body that of a well-nouris about 60 years of age. Rigor mortis pronounced. Head rather small dilated. Calvarium removed; dura mater apparently normal, no ev serous effusion; sinuses distended. Brain normal; weight 1,290 grams. opened. Pericardium not thickened, contained 15 c. c. of bloody fluid; of roughened areas on parietal surface. The surface of the right ventric numerous spots of ecchymosis. In both cavities of the heart were la firm, ante-mortem clots, entangled in the chordæ tendinæ and invo auriculo ventricular valves. Aortic and pulmonary valves were comp few roughened spots of endarteritis in aorta. The left lung was adhere and to pericardium, the lower lobe solidified and in a condition of red tion; the upper lobe crepitant, though much congested, with extensive fibrinous effusion posteriorly; weight 980 grams. The right lung was walls by old adhesions over entire surface, except a small space posterior lungs were œdematous and showed very marked anthracosis. The glands enlarged on both sides. Liver normal; weight 1,990 grams. Ga

[illegible]

May 26.—Patient slightly delirious last night and is very restless this mor
May 28.—Dullness now extends over the entire right lung. Temperature, 3
pulse 136, and respirations 40. The heart sounds are loud and clear. The se
sound over the pulmonary artery is accentuated.
May 29.—No improvement since last note.
May 30.—Temperature 39° C., pulse 128, weak and dicrotic; respiration
Patient died 5.30 a. m., May 31.
Necropsy (eight hours after death).—Height, 1.78 meters. Post-mortem l
ity not apparent (negro); rigor mortis marked. General nourishment go
well-developed, muscular man. Pupils slightly dilated. Heart: Weight
opening, 380 grams; valves competent, otherwise normal. Pericardial sac
mal, contains normal fluid. Left ventricle contains firm coagula. The r
chambers are distended with firm, tenacious coagula, which extend into the
sels. Nares, larynx, and trachea normal. Lungs: Left, weight 600 grams, nor
pleural cavity normal; right, weight 1,930 grams. The entire lung is consolida
The tissue is reddish-brown color, firm and airless. On section the surface is
friable, and granular; pleural cavity contains a small quantity of blood-stai
serum, and is adherent to chest wall laterally. Gastro-intestinal tract: Ton
pharynx, and œsophagus normal. Stomach contains coagulated milk.
mucous membrane is gray in color, with points of ecchymosis. The walls
somewhat thickened and the rugæ prominent and enlarged. Pylorus and
diac orifice normal. Small and large intestines distended with gas; rec
normal. Liver is enlarged and somewhat sclerosed; color, light brown; we
3,250 grams. Gall bladder and ducts normal. Pancreas, weight 60 gra
The gland is somewhat firmer than normal; probably an overgrowth of the fibr
tissues. Kidneys: Left, weight 153 grams; and right, weight 152 grams. B
kidneys congested. Pelvis and ureters normal. Bladder, urethra, and pros
normal. Suprarenal bodies: Left, weight 4.5 grams; right, weight 4.5 gra
color, reddish-yellow. Spleen, weight 175 grams, normal. Scalp and skull
mal. Membranes of brain and the brain normal. Brain, weight 1,424 gra
Other organs not examined. Microscopical examination made of specimens f
lung, liver, kidney, and pancreas (by C. R. G.). The lung showed its alv
filled with an exudate of epithelial cells and fibrin. The lung tissue can scar
be demonstrated. No pneumococci were found with Gram stain. The kid
The epithelium of many of the tubules was desquamated; the tubules filled
granular detritus. In several places we find heaps of round, inflammatory c
The blood vessels are engorged. The liver shows collection of inflammatory c
around vessels. There is a slight increase of connective tissue. The panc
shows some increase of connective tissue.

J. B.

Pneumonia; purulent pericarditis.

M. H. S.; age, 34; nativity, United States; occupation, oysterman; admitte
United States Marine Hospital, Baltimore, Md., March 8, 1901; died March 16,1
Family and personal history negative. Present illness started March 6
stitch-like pain at the lower border of ribs on left side. Aggravated by
inspiration; then followed a feeling of chilliness and slight cough. This co
tion continued until patient was admitted to hospital, although feeling gradu
worse each day.
Physical examination.—General condition apparently good. Expansion
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delirium marked. March 12 the patient has signs of consolidation in lower
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W. C. B.
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[illegible] LLOWING OPERATION

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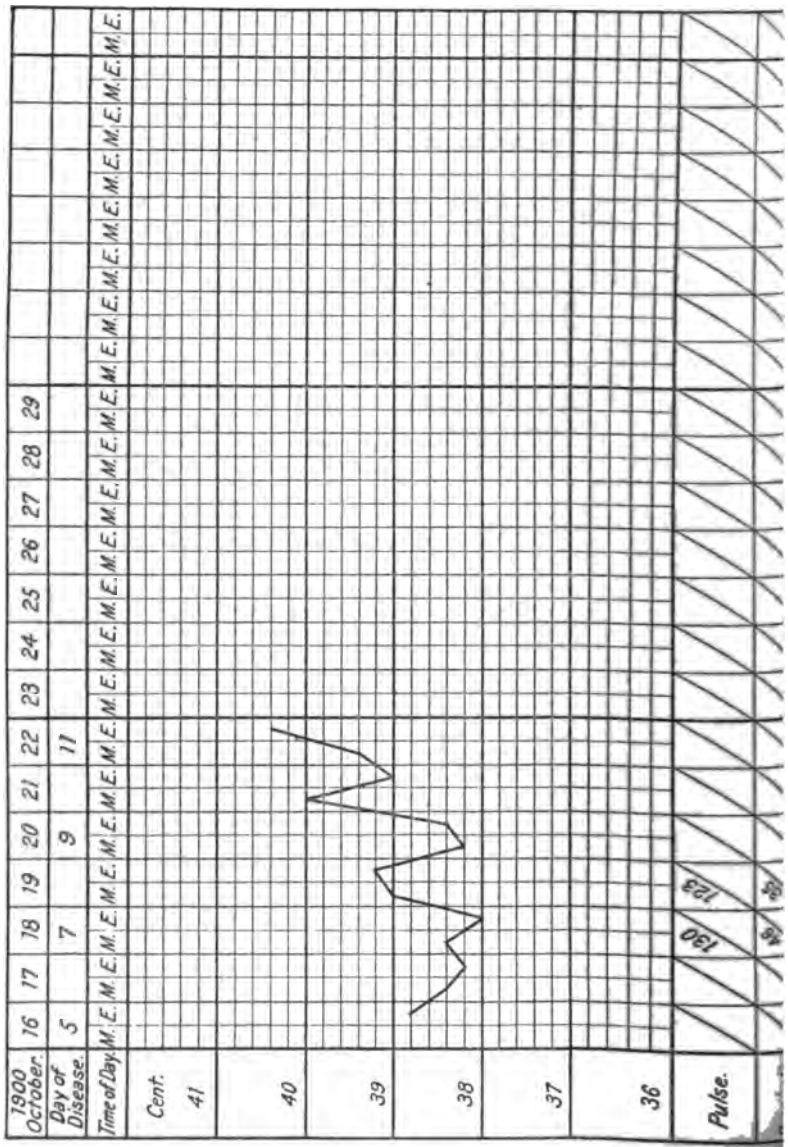
U. S. Marine Hospital, port of San Francisco, Cal.
Name, C. K.; age, 42 years; disease, pneumonia, lobar.



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J. M
G. V

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[illegible]

organs: Kidneys, left, weight 350 grams, is somewhat congested, but normal. Right, weight 360 grams, congested. Spleen, weight 350 gram enlarged, color normal. Bladder normal. Suprarenal capsules norm Weight 4 grams; right, weight 4.5 grams. Other viscera normal. l examined.

Pneumonia, lobar.

J. H.; age, 50 years; nativity, New York; admitted to the United Stat Hospital, Stapleton, Staten Island, August 16, 1900; died August 16, 190

History.—Patient entered hospital *in extremis*. Impossible to get his him.

Physical examination.—General appearance that of an alcoholic; perc chest reveals absolute flatness of entire right lung from apex to base; rig chest contracted and only transmitted sounds heard. Left lung: Percus hyper-resonant; auscultation reveals sonorous and subcrepitant râles The sounds of the heart obliterated by the aggravated breath sounds o lung; apex beat displaced downward. Skin: There is a red eruption th tributed upon the arms, shoulders, and chest, and less so on the abdo lated, macular spots about the size of a pin head and do not form patche defined edges, disappear on pressure and quickly regain their color. glands not enlarged; no scar on penis.

Sputum examination: Thick, frothy, tenacious in character and the brick dust or prune juice; diplococci of pneumonia found in large quanti other bacteria. Treatment: Stimulation by nitroglycerine, digitaline, an Died suddenly.

Necropsy (eighteen hours after death).—Body, male, apparently well n about 5 feet 6 inches in height, weight 140 pounds. Rigor mortis Hypostasis lower part of body marked. Subcutaneous fat abundant lung: Bound down by numerous adhesions to costal wall and diaphragm, and middle lobes in a state of beginning resolution and gray hepatizati lobe engorged; cut surface shows frothy exudate. Weight of lung, 2.1 Left lung: Apex slightly adherent to costal wall, old adhesions extend apex to diaphragm posteriorly, lung being smaller than the average, wei grams, lobes being bound by adhesions indicating a previous pneumonia Removed and opened; stopped in diastole, most marked on left side; c deposits on tricuspid valves; other valves normal. Weight 350 gra phragm: In normal position. Liver, normal, weighs 1,950 grams. Gall distended with bile, contained one calculus about the size of a robin's eg ent to duodenum. Right kidney in normal position, weight 200 grams, mal in character. Left kidney normal, weight 250 grams. Spleen gre gested and bound down by adhesions. Intestines greatly distended Brain normal.

T.
G

Pneumonia.

P. E.; age, 30; native of England; admitted to the marine ward of the Hospital, Philadelphia, Pa., July 30, 1900, died July 31, 1900.

History.—Had been ill five days with fever, pain in chest, and congl physical examination the entire right lung was found to be consolidat left lung presented evidence of an acute bronchitis. The pulse was r weak, and the general condition of the patient was very bad. Despite treatment he grew steadily worse and died within twenty-four hours of l sion to the hospital.

Necropsy (ten hours after death).—The body is that of a well develo nourished adult white male. Rigor mortis is present to a slight degre is no œdema. There are adhesions at the base of both lungs. The rig throughout in a condition of gray hepatization, the cut surfaces exudin ish purulent fluid. The left lung is congested, the walls of the bro inflamed and scattered throughout the lung; there are small areas of cons The heart and pericardium are normal. The intestinal tract is normal. neys are in a condition of acute parenchymatous inflammation. The rig weighs 165 grams, the left 151 grams. The rest of the genito-urinar normal. The spleen is slightly increased in size, and weighs 240 gra pancreas is normal. The brain and spinal cord were not examined.

l

immediately beneath the capsule which does not present a wavy appearance are small areas in which there are collections of connective tissue cells and lymphocytes. In some of these areas there is already overgrowth of the connective tissue fibers, with resulting atrophy of the parenchyma. The Malpighian bodies vary greatly in size. Their glomeruli are slightly shrunken and their capsules are slightly thickened. The parenchyma is somewhat granular and cloudy, otherwise normal. Liver: This organ shows some stagnation of blood in the centers of its lobules. The cells, especially those surrounding the intralobular veins, are heavily loaded with fine brown granular pigment. There is visible also a tendency to lymphocytic aggregation around the periphery of the lobules. The bile ducts are normal. Lungs: The septa are normal and show no hyperæmia. The alveoli are filled with desquamated epithelium and lymphocytes, also a few polymorphonuclears. In some there is evidence of coagulated fluid.

M. E. L.
M. J. W.
J. M. G.

Chronic Bright's disease, lobar pneumonia, and rheumatism.

M. S.; age, 47; nativity, Germany; admitted to United States Marine Hospital, Stapleton, Staten Island, July 5, 1900; died August 11, 1900.

Family history.—Mother died of hemorrhage of the lungs while young. Father died of old age.

Previous history.—Usual diseases of childhood. At Alexandria, Egypt, about twenty years ago, had typhoid fever. Had rheumatism in Australia nearly twenty years ago, and has been affected with it off and on ever since. Smokes and drinks.

Present history.—Ten days ago began to have dyspnœa, cough, muco-purulent expectoration, pain in chest, and œdema of feet. Has acute articular rheumatism affecting at present the right foot and right shoulder.

Physical examination.—General nutrition poor, conjunctivæ jaundiced, tongue coated yellowish, anæmic appearance, feet œdematous, chest expansion about equal, breathing dyspnœic. Slight dullness over right apex. Respiratory murmur harsh, mucous râles heard over both lungs. Fremitus exaggerated on both sides. Liver and spleen not palpable. Passes about 1,200 c. c. of turbid urine, containing about 0.4 per cent of albumen, pus cells, and numerous bacteria. Urine is voided with difficulty, and on examination a deep perineal stricture is found.

Treatment.—Confined to bed. Milk diet. Prescription of ammo. chlorid., ammo. carb., aa. 7.5 gm.; mist. glycyrrhizæ comp., ad 100. M., sig., 5 c. c. every 4 hours. Give also sodii salicylatis, 1 gm., q. 3 hours. Apply to inflamed joint equal parts of ol. gaultheriæ, spts. vini rect., and lin. chloroformis on lint covered by oiled silk.

July 12.—No dyspnœa. Right elbow painfully swollen and red. Other joints better. Apply liniment to elbow. Give inf. digitalis, 15 c. c., t. i. d. Bowels inactive. Give mag. sulph., 15 g. Coughs considerably; appetite poor.

July 15.—No marked improvement. Cough medicine stopped. Ordered equal parts of wine of ipecac and water as spray, to be inhaled. Teeth in very poor condition. Gums swollen and ulcerated. Foul odor from mouth. To use mouth wash of 25 per cent solution euthymol.

July 17.—Cough and expectoration less. Appetite poor. Vomited this a. m. Passes about 1,200 c. c. of highly albuminous urine daily. Condition of gums not improved. Chlorate of potash and tr. myrrh swabbed over gums. All internal medication stopped.

July 24. Condition much worse. Dyspnœa marked for past 24 hours. Unable to urinate for past 3 days. Had to be catheterized with silver catheter. Stricture almost occludes urethra. Prescription: Strych. sulph., 0.04; caffein cit., 4; tr. strophanthus, 10; aquæ, ad 100 c. c. M., sig.: 5 c. c., t. i. d. Substitute for present mouth wash, sol. permanganate of potash, 1-5000.

July 26.—Milk pancreatinized, but vomiting continues. Rheumatism continues but is much better. Submaxillary glands swollen and tender. Catheterized daily. Mustard plaster over epigastrium, and cocaine to relieve vomiting.

July 30.—Rheumatism in left wrist and ankle worse since last night. Mouth about the same. Can retain milk pretty well. Stop permanganate mouth wash. Use as mouth wash acid salicylic, 4; tinct. cinchona co., 50; aquæ, ad. 200. Mix, filter. Paint wrist and knee with iodine.

August 1. Dyspnœa distressing. Had a chill this morning. Temperature 104. Vomited. Headache. Now urinates voluntarily. Bowels active. Friction sound over right side of chest. Stop present medication. Feed per rectum with predigested food.

[illegible] marked consolidation [illegible] right lung. Temperature [illegible] containing the hydrochloric [illegible]

[illegible] Mucous râles over upper lobes [illegible] Marked dyspnœa. Urine more scanty. [illegible] alternating with nitroglycerin [illegible]

[illegible] for past two days. Dyspnœa less marked [illegible] Takes some milk by mouth. Very little pain [illegible]

[illegible] stimulation. Died at [illegible]

[illegible] appear [illegible]

[illegible]

[illegible] M. K[illegible]
[illegible] W[illegible]

[illegible]

[illegible]

[illegible] dilated and hypertrophied [illegible]

tendinæ fragile; concretions around mitral and aortic valves. Weight, 575 grams. Abdomen: Cavity contained 1,275 c. c. of serous fluid; omentum thin and scant with no fat. Liver: Dark gray in color, "hobnailed" on surface, hard and dense to the touch, with marked resistance to cutting; right lobe very rounded and prominent. Weight, 1,080 grams. Gall bladder greatly distended with intensely black fluid. Pancreas normal. Spleen: Light gray in color; weight 140 grams. Kidneys: Right kidney hard and dense; several hard papillary eminences on surface. Cortical substance dark-red color, containing a number of cavities about 1 cm. in diameter, and containing a clear serous fluid; medullary portion was of a dirty yellow color. Weight, 190 grams. Left kidney same in appearance as right. Weight, 200 grams. Left suprarenal capsule firmly adherent. Ureters normal. Bladder distended with urine.

B. D.?
J. G.

Chronic bronchitis, with abscess of lung.

E. G.; white; age, 50; nativity, Canada; admitted to the United States Marine Hospital, Baltimore, Md., June 22, 1900; died July 16, 1900. Diagnosis, chronic bronchitis.

Family history.—Negative.

Personal history.—Moderate drinker; has had mumps, scarlet fever, diphtheria, chicken pox, and liver trouble. Has had a cough for the last sixteen years. He lost flesh rapidly in the last week previous to entrance to hospital; says he has had spells of weakness which come on him suddenly and leave him almost helpless. Condition of patient on admission not good; bowels loose; persistent paroxysmal cough; expectoration fibrinous, and expelled with difficulty. On inspection emaciation was marked; auscultation revealed large moist râles. Temperature when admitted 39.6°. Microscopical examination of sputum revealed the presence of streptococci, staphylococci, and diplococci in large numbers. Patient gradually grew weaker, suffering a great deal from violent paroxysms of coughing, and died July 16 at 6.10 a. m.

Necropsy (nine hours after death).—Post-mortem lividity present in dependent parts; rigor mortis well marked; general nourishment poor; pupils irregular. Heart weighed 325 grams and was normal. Left lung adherent anteriorly and posteriorly; patches of consolidation in apex; small abscess at base; air cells filled with purulent matter; weighed 800 grams. Right lung adherent at apex; entire organ showed hypostatic congestion, with areas of consolidation at base; weighed 860 grams. Liver weighed 1,008 grams and was normal. Left kidney weighed 18[illegible] grams and showed evidences of septic emboli; right kidney weighed 170 grams and was normal. Spleen weighed 205 grams and was normal. Calvarium removed; brain and membranes normal; weight of brain, 1,375 grams.

M. W. G.
G. P.

Acute pleurisy; chronic anæmia.

T. W.; age, 51 years; nativity, New York; admitted to the United States Marine Hospital, New York (Stapleton), N. Y., June 7, 1900, and died July 9, 1900. Chief complaint, malaria.

Previous history.—Has had chills and fever several times; had chancres once. Present illness began four weeks ago with a chill, followed by fever and headache.

Physical examination.—Well nourished and developed; face and body is jaundiced; conjunctivæ are pale; ankles œdematous; heart, lungs, liver, and spleen are negative.

Treatment.—Patient was put on a pill of iron, arsenic et strychnia, t. i. d.

July 6.—Blood examination shows absence of leucocytosis, absence of plasmodium malariæ, and absence of nucleated red blood corpuscles.

July 7.—Patient can walk to closet, but shows marked dyspnœa. There is dullness at base of right lung.

July 8.—Patient is confined to bed with shortness of breath.

July 9.—Death.

Necropsy (twenty-four hours after death).—Body that of male, white, aged about 50 years. Slight œdema of ankles and scrotum; marked pallor of lips, conjunctivæ, and face; fat well retained; no jaundice perceptible. Calvarium removed; sinuses, vessels, brain, bones, and membranes negative. Anterior mediastinum negative. Remains of thymus gland negative. Pericardium contains about 75 c. c. of straw-colored fluid. Pericardium apparently normal. Heart: Weight, 400 grams; valves apparently normal; "chicken-fat" clots in

TUBERCLE OF LUNGS.

J. Y.; age, 42 years; [illegible] England; was admitted to the United States Marine Hospital, [illegible] San Francisco, Cal., April 4, and died April 17, 190[illegible].

History.—Mother died [illegible] consumption. Patient had yellow fever [illegible] years ago, and has had malaria. He had a cough, extreme dyspnœa, and night sweats for over a year, and has lost about 40 pounds in weight. He had some pain in chest lately. Appetite capricious; bowels quite loose; slept poorly; has laryngeal complication and was very hoarse.

Physical examination.—Inspection: Greatly emaciated; scapulæ prominent; left scapula moved with respiration, right seems immobilized; breathing regular, abdominal, and very labored. Palpation: Vocal fremitus increased on both sides, but greater on right than left. Cardiac impulse felt in fifth interspace, just inside mammary line. Percussion: Anteriorly entire right lung dull; left lung dull down to third interspace. Posteriorly both lungs dull down to about the fifth rib. Auscultation: Coarse crepitant and subcrepitant râles heard over the upper lobe of the left lung and extending down to about the fourth rib. Over the remainder of the left lung is heard bronchial breathing. Right lung: Bubbling râles, crepitant and subcrepitant, heard over entire lung, also well-defined friction sounds. Heart: Size and position normal; no murmurs; pulse 134 per minute, of low tension and small volume. Tubercle bacilli were found in the sputum in immense numbers. He was put on an easily digestible special diet, was given sedatives for his cough, tonics, and stimulants. For a few days he showed some slight improvement, then he suddenly began growing rapidly weaker, and on April 17 died.

Necropsy (fifteen hours after death).—Body that of a fairly well-developed and nourished adult white male; weight, 55 kilograms. Rigor mortis well marked. Post-mortem lividity slight. Paniculus adiposus scanty. Abdominal viscera normal in color. Omentum scantily supplied with fat. Fat of anterior mediastinum also scanty. Pericardial cavity contains about 50 c. c. of straw-colored fluid. Heart: Weight, 385 grams; aortic and pulmonary valves support a column of water; heart muscle somewhat flabby, about normal in color and thickness. The aortic valves show a few small atheromatous patches. The other valves are normal. Pleura: The parietal and visceral layers are adherent over entire surface on both sides, entirely obliterating pleural cavities, the adhesions being much firmer on right side. Left lung: Weight, 980 grams; floats in water; upper lobe and upper third of lower entirely consolidated, the upper in various places being in a condition of coagulation necrosis, and many small cavities found in upper lobe. There are miliary tubercles scattered over the entire lung, and the lower part of lower lobe is greatly congested and œdematous. Right lung: Weight, 939 grams; very firmly adherent to the chest wall; in a condition similar to left but further advanced. Liver: Weight, 1,780 grams; surface smooth; cut surface slightly congested; otherwise apparently normal. Gall bladder: Distended with bile; its duct patulous. Pancreas: Weight, 115 grams, apparently normal. Spleen: Weight, 200 grams; its surface shows some small dark markings, but smooth; cut surface appears slightly congested; Malpighian corpuscles indistinct. Left kidney: Weight, 170 grams; surface smooth; capsule strips readily; medullary rays quite distinct; nothing abnormal, apparently, macroscopically. Right kidney: Weight, 150 grams; in every way similar to its fellow. Intestines: Throughout greater part of ileum is seen the shaved-beard appearance characteristic of enteric fever. Coiled in the cæcum were four ascarides lumbricoides averaging about 14 cm. in length. Several tubercular ulcers were found in the large intestines. Stomach slightly congested; otherwise normal. Bladder quite firmly contracted; walls normal. Brain: Weight, 1,450 grams; appears quite normal.

[illegible] Pericardium appears quite normal. Heart: The muscle cells and fibers [illegible] are all well stained; the longitudinal striations are quite distinct, [illegible] cross striations cannot be seen. There is a deposit of fine brown pigment [illegible] in the muscle cells. The walls of the coronary arteries appear [illegible] Pleura: Very thickened, particularly its fibro-elastic stroma [illegible] with few connective tissue cells. Scattered throughout its thickness are [illegible] epithelial cells, and tubercle granular matter. Here and there [illegible] normal [illegible] cell is seen. There is a growth of endothelial cells [illegible] all blood vessels. Lung: Scattered throughout [illegible] tubercles, consisting [illegible] epithelial cells and giant cells. [illegible] necrosis, and their [illegible] and nuclear debris.

[illegible] white scar [illegible] fairly well marked. [illegible] along incision anteriorly. [illegible] Pericardium normal. Heart: W[illegible] Right lobe: Weight [illegible] grams; is completely cons[illegible] and middle lobes are riddled with cavities and s[illegible] Weight [illegible] grams; is not nearly so solid and is mu[illegible] Left lobe: Weight 1,660 grams; about normal in size. The ri[illegible] [illegible] The left lobe is rather firm, due to abnormal [illegible] Weight, [illegible] grams; surface mottled; large, white k[illegible] Capsule somewhat adherent, otherwise similar in all res[illegible] Weight [illegible] grams; enlarged and shows evidence of old peri[illegible] somewhat contracted. The other viscera are apparently normal.

A. M
C. W
J. M.

Microscopical report. Pericardium: Atrophy of the subpericardial area[illegible] other wise normal. Heart muscle: Somewhat fragmentary. Cells and [illegible] Coronary arteries normal. The [illegible]

May 29.—Became very weak [illegible] stimulati[illegible] times maniacal. Respirat[illegible] rapid; pulse rapid and [illegible] Cyanosis and dyspnœa pro[illegible] temperature this a.m. [illegible] Became worse and died at [illegible]

Necropsy (twelve hours a[illegible]).—B[illegible] a male, apparently 45 years [illegible] Rigor mortis well developed; slight post-mortem stains; emaciated; muscle development poor; no marks of [illegible] save slight bruise on left arm; pupils dilated; small scar on left knee; [illegible] normal; thymus [illegible] not found; pericardium smooth, glistening, and contains clear serum. H[illegible] Left ventricle contracted; right [illegible] in size; both auricles, right ventricle, and venæ cavæ contain fluid [illegible] clotted blood; pulmonary vessels and aorta contain ante-mortem [illegible] in left ventricle, some adherent to it; aortic orifice compe[illegible] test; valves normal; mitral orifice admits two fingers freely; valves normal; tricuspid and semilunar valves apparently all right; coronary vessels [illegible]; myocardium shows no gross changes; heart weighs 320 grams. Left pleura: Adhesions all around apex of lung and its posterior surface; about 500 c.c. of clear serum in cavity. Right pleura: [illegible] adhesions at apex and root of lung; [illegible] fluid; left lung weighs 870 grams; masse floats; at apex several cavities containing tubercular debris found; rest lung congested and toward base œdematous and also very extensively infiltrated with miliary tubercles; bronchial tubes filled with muco-purulent exudate; right lung weighs 880 grams; large cavity at apex; rest of lung similar to left; density infiltrated with miliary tubercles; bronchial glands enlarged and tubercular; great vessels and nerve trunks show no gross changes; diaphragm normal; omentum contains some enlarged glands; mesenteric glands enlarged and tubercular. Spleen: Normal position; weighs 140 grams; has scar on external surface near exterior border; splenic pulp shows no gross lesions; suprarenal glands normal. Left kidney: Position, size, and consistency normal; capsule not adherent; weighs 180 grams; markings fairly distinct; cortex yellowish. Right kidney: Weighs 160 grams; otherwise same as left; ureters normal. Bladder: Mucous membrane shows catarrhal inflammation, subacute; has slight hydrocele of right tunica vaginalis; large and small intestines show no tubercles or ulcerations; pancreas normal. Liver: Weight, 2,380 grams; advanced fatty changes present. Brain: Skull cap opened and brain examined, but nothing of interest found.

J. M. [illegible]
P. H. [illegible]

Tubercle of lung.

M. B. C.; age, [illegible]; nativity, New York; admitted to the United States Marine Hospital, Fort Stanton, N. Mex., December 7, 1900; died March 22, 1901.

Previous history (condensed from clinical notes of the medical officer in command at St. Louis, Mo.).—Admitted to the United States Marine Hospital, St. Louis, Mo., November 30, 1900. Family history negative. Personal history of measles, chicken pox, and malaria (1899). Present sickness began about two years ago; three months ago with cold. Has had cough ever since and has fever in afternoons. Had four night sweats about a month ago. Considerable expectoration. Dyspnœa on exertion, emaciation, lost 35 pounds. Physical examination shows depressions above and below clavicles, dullness over whole right lung, increased vocal fremitus in same, with increased breath sounds and vocal resonance. Left lung apparently normal. Sputum contains tubercle bacilli. General condition improved under treatment. Transferred to Fort Stanton December 3, 1900.

W. G. [illegible]

Condition as noted on arrival at Fort Stanton was as follows: Emaciation. [illegible] chest, nails, and gums; increased vocal fremitus on right side, dullness right lung, except middle lobe anteriorly, diminished resonance in left apex [illegible] base. Right lung had crackling rales all over, with bronchial breathing and [illegible] in apex and subclavicular region, and diminished breathing [illegible] Left lung showed a few rales in apex and base. Heart action weak. [illegible] the Ehrlich diazo reaction and alkaline reaction. Sputum showed [illegible] bacilli. This was a serious case on arrival, and though slight im[illegible] [illegible] it was only temporary, and the case progre[illegible] rapidly.

[illegible] Inspection [illegible] and blue eyes. Calvarium not removed. The [illegible] tuberculous glands. Heart [illegible] about [illegible] of serous fluid. Right lung abn[illegible]

[illegible] tuberculosis
[illegible] liver and spleen, tuberculosis

[illegible] nativity, Indiana; admitted to United Stat[illegible] January 29, 1901; died May 13, 1901.

[illegible] from clinical notes of medical officer in co[illegible] [illegible] admitted to hospital December 25, 1900. Family hi[illegible] measles during childhood; gonorrhœa several [illegible] Present sickness began about three months ago wi[illegible] Has expectoration, fever, and night sw[illegible] Physical examination shows emaciation, d[illegible] increased fremitus on right side, impaired reson[illegible] on percussion; broncho-vesicular breathing at r[illegible] other forms of bacteria in sputum. Case has not [illegible]

[illegible] at Fort Stanton: Weakness, hoarse voice, dyspn[illegible] emaciation, diminished movements of right che[illegible] Vocal fremitus greater on right side of chest. [illegible] upper lobe and in left base. Tenderness on right si[illegible] In right upper lobe and apex crackling râles and [illegible] middle lobe a large cavity anteriorly with gurgling râles: p[illegible] and crackling râles. Left lung shows harsh r[illegible] at time, râles in base. Heart apparently normal. [illegible] contained many tubercle bacilli and various coc[illegible] plasmodia. This was a bad case when [illegible] ground. The throat was very painful and ga[illegible] occurred. Insomnia was experie[illegible] Death occurred May 13, 1901.

[illegible] Calvarium not removed [illegible] Body [illegible] emaciated. Larynx shows [illegible] rolled down to and involv[illegible] false vocal c[illegible] [illegible] rolled in [illegible] of ulcer[illegible] not involving the is[illegible] [illegible] glandu[illegible] atrophy of [illegible] clot at [illegible] normal. [illegible] The [illegible]

[illegible]

[illegible]

Bright's disease.—Chronic nephritis.

J. D.; age, 35 years; nativity, Pennsylvania; was admitted to the United States Marine Hospital, port of San Francisco, Cal., February 13 and died February 23, 1901.

History.—Family: Father dead; cause, tuberculosis. Mother dead; cause, tuberculosis. Four brothers died in infancy; cause unknown. Patient had pneumonia twelve years ago; had inflammation of bursa patellæ eight years ago; had gonorrhea four times; denied syphilis. Habits: Patient smoked to excess and used alcohol moderately. Patient had been troubled with cough and expectoration for about four months; had lost very little in weight, and his appetite was poor. He had been dyspnœic on exertion for about two years. About a week before entering the hospital patient had several chills, followed by sweating. The cough and expectoration became augmented and caused great pain in his left lung. The expectoration was purulent and of a very disagreeable odor. Patient had been deaf in his left ear for fifteen years, and lately had become hard of hearing in his right ear. Patient's bowels were very loose; he slept poorly, and was very weak.

Physical examination.—Palpation: Increased fremitus over right apex. Percussion: A dull note over apex of right lung. Tympanitic note over middle lobe of left lung. Auscultation: Bronchial breathing and numerous râles. From time patient entered he had profuse night sweats, vomited medicines, and rapidly grew weaker.

Treatment.—Bismuth subnitrate and Dover's powders to control bowels; strychnine and whisky as a tonic; atropine for night sweats, and codeine mixture for cough, with abundant, easily digestible nourishment. His temperature varied between 36.2° C. and 38.8° C. The tubercle bacillus, though sought for, was not found.

Necropsy (eight hours after death).—Body that of an adult white male, much emaciated, about 1.65 meters in height, and weighing about 60 kilograms. Muscular development poor. Upon the right shin there is a smooth, white scar 2 by 5 cm. in area. Rigor mortis and post-mortem lividity fairly well marked. Brain: Weight, 1,180 grams; normal. Skeletal muscles along incision anteriorly appear normal. Anterior mediastinum normal. Pericardium normal. Heart: Weight, 302 grams; normal. Right lung: Weight, 810 grams; is completely consolidated at its apex, and the upper and middle lobes are riddled with cavities and smaller abscesses. Left lung: Weight, 435 grams; is not nearly so solid and is much more œdematous. Liver: Weight, 1,660 grams; about normal in size. The right lobe is soft and rather friable. The left lobe is rather firm, due to abnormal fibrous tissue. Left kidney: Weight, 205 grams; surface mottled; large, white kidney. Right kidney: Capsule somewhat adherent, otherwise similar in all respects to left. Spleen: Weight, 255 grams; enlarged and shows evidence of old perisplenitis; somewhat congested. The other viscera are apparently normal.

A. M. M.
C. W. V.
J. M. G.

Microscopical report.—Pericardium: Atrophy of the subpericardial areolar tissue; otherwise normal. Heart muscle: Somewhat fragmentary. Cells and nuclei stain well. Cross striations discernible. Coronary arteries normal. There is a deposit of fine brown granular pigment in the cells, indicative of brown atrophy. Pleura: This is considerably thickened and infiltrated with connective tissue cells. It contains tubercle tissue throughout its substance. Its surface shows an immense deposit of fibrin, interspersed through which are granular material, epithelial cells, and lymphocytes. Lung: Almost entire section is consolidated. The vesicles are filled with epithelial cells, connective tissue, and lymphocytes. The walls of the vesicles are thickened and infiltrated with epithelial cells and lymphocytes. The bronchi are greatly thickened by new connective tissue, and are also infiltrated with epithelioid cells and lymphocytes. Many of the vesicles contain large, pale, fatty epithelial cells, with an occasional giant cell. The intima of the blood vessels is thickened and they are all distended with blood. Coal pigment is deposited in the interstitial tissue throughout the section. At various places are seen small abscesses filled with lymphocytes, degenerated epithelium, pus cells, and nuclear débris. Liver: Appears quite normal, with the exception of some pigmentation of cells. Kidneys: A few of the malpighian bodies are somewhat shrunken and show hyaline degeneration of portions of their glomeruli. Some of the cells of the convoluted tubules are swollen and pale and infiltrated with a granular material, but for the most part these are normal. The conduct-

May 29.—Became very weak during night, but responded to stimulation; continues maniacal. Respirations very shallow and rapid; pulse rapid and feeble. Cyanosis and dyspnœa profound; cold sweat. Temperature this a. m., 36.4°. Became worse and died at 10.30 p. m.

Necropsy (twelve hours after death).—Body of a male, apparently 45 years old. Rigor mortis well developed; slight posterior suggillations; emaciated; muscular development poor; no marks of violence save slight bruise on left arm; pupils dilated; small scar on left knee; anterior mediastinum normal; thymus remains not found; pericardium smooth, glistening, and contains clear serum. Heart: Left ventricle contracted; right soft; opened in situ; both auricles, right ventricle, and venæ cavæ contain fluid blood and soft clotted blood; pulmonary vessels and aorta contain ante-mortem clot; small clot in left ventricle, somewhat adherent to it; aortic orifice competent to hydrostatic test; valves normal; mitral orifice admits two fingers freely; valves normal; tricuspid and semilunar valves apparently all right; coronary vessels patent; myocardium shows no gross changes; heart weighs 320 grams. Left pleura: Adhesions all around apex of lung and to its posterior surface; about 50 c. c. of clear serum in cavity. Right pleura: Slight adhesions at apex and root of lung; no fluid; left lung weighs 870 grams; en masse floats; at apex several cavities containing tubercular débris found; rest of lung congested and toward base œdematous and also very extensively infiltrated with miliary tubercles; bronchial tubes filled with muco-purulent exudate; right lung weighs 880 grams; large cavity at apex; rest of lung similar to left; densely infiltrated with miliary tubercles; bronchial glands enlarged and tuberculous; great vessels and nerve trunks show no gross changes; diaphragm normal; omentum contains some enlarged glands; mesenteric glands enlarged and tuberculous. Spleen: Normal position; weighs 140 grams; has scar on external surface near exterior border; splenic pulp shows no gross lesions; suprarenal glands normal. Left kidney: Position, size, and consistency normal; capsule nonadherent; weight, 180 grams; markings fairly distinct; cortex yellowish. Right kidney: Weight, 160 grams; otherwise same as left; ureters normal. Bladder: Mucous membrane shows catarrhal inflammation, subacute; has slight hydrocele of right tunica vaginalis; large and small intestines show no tubercles or ulcerations; pancreas normal. Liver: Weight, 2,380 grams; advanced fatty changes present. Brain: Skull cap opened and brain examined, but nothing of interest found.

J. M. K.
P. H. B.

Tubercle of lung.

M. B. C.; age, —; nativity, New York; admitted to the United States Marine Hospital, Fort Stanton, N. Mex., December 7, 1900; died March 22, 1901.

Previous history (condensed from clinical notes of the medical officer in command at St. Louis, Mo.).—Admitted to the United States Marine Hospital, St. Louis, Mo., November 30, 1900. Family history negative. Personal history of measles, chicken pox, and malaria (1899). Present sickness began about two years and three months ago with cold. Has had cough ever since and has fever in afternoons. Had four night sweats about a month ago. Considerable expectoration. Dyspnœa on exertion, emaciation, lost 35 pounds. Physical examination showed depressions above and below clavicles, dullness over whole right lung, increased vocal fremitus in same, with increased breath sounds and vocal resonance. Left lung apparently normal. Sputum contains tubercle bacilli. General condition improved under treatment. Transferred to Fort Stanton December 3, 1900.

W. G. S.

Condition as noted on arrival at Fort Stanton was as follows: Emaciation, typical chest, nails, and gums; increased vocal fremitus on right side, dullness in right lung, except middle lobe anteriorly, diminished resonance in left apex and base. Right lung had cracklin ; râles all over, with bronchial breathing and pectoriloquy in apex and subclavicular region, and diminished breathing in base. Left lung showed a few râles in apex and base. Heart action weak. Urine gave the Ehrlich diazo reaction and alkaline reaction. Sputum showed many tubercle bacilli. This was a serious case on arrival, and though slight improvement at first occurred it was only temporary, and the case progressed from bad to worse rapidly.

Necropsy (five hours after death).—Inspection of body: Emaciation; light hair and blue eyes. Calvarium not removed. Thorax: Anterior mediastinum contained enlarged tuberculous glands. Heart normal. Pericardium contained about 75 c. c. of serous fluid. Right lung almost entirely consolidated and con-

tained several large cavities filled with pus. Left lung consolidated at apex which showed several small cavities scattered from through it other portions of the same lung. Layers of pleura adherent all over right lung and around left apex. Great vessels and nerve trunks normal. Diaphragm adherent to base of right lung. Abdomen: Omentum and spleen normal. Capsules of kidneys slightly adherent. Right suprarenal capsule enlarged, left normal. Urinary bladder distended with urine. Organs of generation, rectum, duodenum, stomach and gall ducts normal. Liver much enlarged and congested. Pancreas normal. Mesenteric glands enlarged. Small intestine, large intestines and great vessels normal.

C. R.
P. M. C.

M. N., aet. 6, nativity Nova Scotia, admitted [illegible] Hospital, Boston, Mass., March [illegible] 1901, died June [illegible] 1901.

History.—Sickness began four months ago with [illegible] was able to walk or without considerable pain. Has not been able to walk [illegible] at night. Lost considerable weight. Expectoration [illegible] shortness of breath, also pain across shoulders. [illegible] frequently, which is of a very high [illegible]

Physical examination.—Chest: Diminished expansion [illegible] intercostal depressions very much increased [illegible] enlarged. Lungs: Absolute dullness [illegible] right lung. Impaired resonance over apex [illegible] both apices, also over upper and [illegible] apices of both lungs. [illegible] teeth in the other having been removed. [illegible] palate and larynx. He has also a very severe [illegible] bladder. The tubercle bacilli were [illegible]

Necropsy (eighteen hours after death).—[illegible] emaciated. No post-mortem [illegible] weight of brain [illegible] grams. [illegible] heart normal and weighs [illegible] was attached into the [illegible] pleura at its apex with [illegible] with tubercular deposits. [illegible] adhesions, so that it is impossible [illegible] with tubercular deposits. [illegible] mass. The left kidney weighs [illegible] contained a mass of material [illegible] were found in the substance [illegible] capsule adherent. The right [illegible] capsule adherent. Cortex [illegible] great amount of degeneration [illegible] of urine. Its walls are [illegible] bladder deposits. The liver [illegible] organs of generation are apparently [illegible] have been removed [illegible] small intestines apparently normal.

W. E., colored, age [illegible] Hospital, Fort Stanton, N. Mex., M[illegible]

Previous history.—[illegible]

Complaint for.—Admitted [illegible] had [illegible] consumption. [illegible] twenty years ago. Present [illegible] and developed [illegible] recently failed in strength [illegible] dullness over [illegible] fremitus over same [illegible] breathing and [illegible] sputum. Has moderate [illegible]

Condition on arrival at [illegible] considerable dyspnea [illegible] on right side, dullness in upper [illegible]

lobe and throughout left lung; heart apparently normal; urinalysis negative; sputum contained many tubercle bacilli; afternoon fever. This was a very serious case on arrival, and a fatal termination was expected speedily. Whisky and strychnia were administered as indicated, and the latter probably prolonged life several days. Weakness and dyspnœa increased daily till death occurred, as given above.

Necropsy (thirteen hours after death).—Calvarium not removed. Thorax: Anterior mediastinum contained enlarged glands. Heart somewhat enlarged and flabby. Right ventricle dilated; left normal; all valves normal. Pericardium distended with about 200 c. c. of clear straw-colored fluid. Both lungs consolidated nearly all over. Pleural cavities obliterated by firm adhesions. Great vessels and nerve trunks normal. Diaphragm adherent to bases of lungs. Abdomen: Omentum normal. Spleen slightly enlarged and congested. Kidneys, suprarenal capsules, urinary bladder, organs of generation, rectum, duodenum, stomach, and gall ducts normal. Liver enlarged and congested. Pancreas and solar plexus normal. Mensentery loaded with tuberculous glands. Small and large intestines in places showed transverse tubercular infiltration. Great vessels normal. Summary: Dilatation of right ventricle, pericarditis with effusion, tuberculosis of lungs, adhesion of pleural layers, congestion of liver and spleen, tuberculosis of mesentery and intestines.

C. B.
P. M. C.

E. W. (colored); age, 25; nativity, Indiana; admitted to United States Marine Hospital, Fort Stanton, N. Mex., January 29, 1901; died May 13, 1901.

Previous history (taken from clinical notes of medical officer in command at New Orleans, La.).—Admitted to hospital December 25, 1900. Family history negative. Personal history, measles during childhood; gonorrhœa several times in last four years. Present sickness began about three months ago with cough, which has been getting worse. Has expectoration, fever, and night sweats. Has lost 16 pounds in weight. Physical examination shows emaciation, diminished expansion on left side, increased fremitus on right side, impaired resonance over right apex, with pain on percussion; broncho-vesicular breathing at right apex. Tubercle bacilli and other forms of bacteria in sputum. Case has not improved in this hospital.

Condition on arrival at Fort Stanton: Weakness, hoarse voice, dysphagia, poor appetite, night sweats, emaciation, diminished movements of right chest, typical chest, nails, and gums. Vocal fremitus greater on right side of chest. Dullness in right apex and upper lobe and in left base. Tenderness on right side all over and in left base. In right upper lobe and apex crackling râles and bronchial breathing. In middle lobe a large cavity anteriorly with gurgling râles; posteriorly bronchial breathing and crackling râles. Left lung shows harsh respiration throughout and crackling râles in base. Heart apparently normal. Urinalysis negative. Sputum contained many tubercle bacilli and various cocci. Blood examination revealed many plasmodia. This was a bad case when he first arrived and steadily lost ground. The throat was very painful and gave much trouble. March 3 a severe hemorrhage occurred. Insomnia was experienced and was hard to overcome. Death occurred May 13, 1901.

Necropsy (about sixteen hours after death).—Calvarium not removed. Rigor mortis fairly well shown. Body much emaciated. Larynx shows mucous membrane in front swollen and greatly eroded down to and involving the cartilaginous structure of the larynx. Both true and false vocal cords entirely destroyed. Tracheal mucous membrane congested and eroded in small pin-point areas. Œsophageal mucous membrane pale; no points of ulceration. Thyroid gland shows slight bilateral enlargement, not involving the isthmus. Thorax: Anterior mediastinum contained enlarged tuberculous glands. Heart: Right ventricle dilated and on section showed some hypertrophy of the myocardium; left ventricle of normal size. Large ante-mortem clot at beginning of pulmonary artery. Endocardium normal. All valves normal. Pericardium moderately distended with clear fluid; its layers smooth. The lungs were almost entirely infiltrated with caseous material and contained several large cavities in their apices and in other portions. The pleural cavities obliterated by firm fibrous adhesions, necessitating the opening of the lungs in situ. Great vessels and nerve trunks normal. Diaphragm adherent to bases of lungs and to colon. Abdomen: Omentum normal. Spleen adherent at posterior border. Kidneys showed indistinct cortical markings and swelling of the cortex. Suprarenal capsules show post-mortem cystic degeneration. Urinary bladder partly filled

[illegible] organs of generation, rectum, duodenum, stomach, liver, pancreas, solar plexus, mesentery, small intestines, large intestines [illegible] normal. Adhesions between hepatic flexure of colon and [illegible] were distended with gas. Summary: Tuberculosis of lungs, [illegible] hypertrophy of right ventricle of heart, and cloudy swelling [illegible]

[illegible]
P. M. [illegible]

[illegible] nativity Louisiana, admitted to United States Marine Hospital, [illegible] N. M., April [illegible] died May [illegible]

[illegible] Family history negative. Had rheumatism eighteen years [illegible] several years ago. Present sickness: Says he began coughing [illegible] and soon lost weight and strength; has lost about [illegible] for past two months. Not much expectoration [illegible]. Emaciation. Fossæ marked and very [illegible] below clavicles [illegible] dullness in left apex, impaired resonance in right, but no bronchial [illegible] apex beat heaves slightly over right, and a physiological murmur [illegible] heart. Sputum contained tubercle bacilli, diplococci [illegible] of streptococci.

[illegible] was physically examined at Fort Stanton, owing to weakness [illegible] that the examination be put off until he felt stronger. For [illegible] improved slightly, but this did not continue long. When he [illegible] much bothered with dyspnœa and other symptoms, and became very [illegible]. Early in the morning of May [illegible] became very weak. The usual [illegible] were administered, but made no impression. Death occurred [illegible]

[illegible] Regurgitation moderate, small amount [illegible]. Body spare, emaciated, as far as [illegible] Cavity was [illegible]. Left lung: Apex and last [illegible] contracted. Many [illegible] adhesions. Heart [illegible] extending into pulmonary artery. All valves normal [illegible] with a moderate amount of clear serum. Lung [illegible] small cavities. Liver [illegible] Kidneys [illegible] Spleen [illegible] Bladder [illegible] Rectum [illegible] Stomach [illegible] Duodenum [illegible] Pancreas [illegible] Solar plexus [illegible] Mesentery [illegible] Small intestines [illegible] Large intestines [illegible] Hepatic flexure of colon and [illegible] were distended with gas. Summary: Tuberculosis of lungs, [illegible] hypertrophy of right ventricle of heart, and cloudy swelling [illegible]

[illegible]
[illegible] M. [illegible]

[illegible] nativity N. [illegible] M. [illegible] N. M., [illegible]

[illegible] Family history [illegible] years [illegible] present. [illegible] weight [illegible] dullness [illegible] breath [illegible] appetite [illegible]

rhoids. Has erosion of right vocal cord, with pain in swallowing and partial aphonia. Later a cavity discovered in right upper lobe. Tubercle bacilli found in sputum. Urinalysis negative.

F. J. T.

Physical condition as noted on arrival at Fort Stanton was as follows: Suspicious scars on legs; typical chest and nails; limited motion of right chest; hoarse voice; cough and dyspnœa; increased vocal fremitus in right lung; dullness in right lung anteriorly merging into liver dullness; posteriorly dullness in upper lobe. Crackling râles in right lung, bronchophony above, prolonged expiration, diminished breathing in base (left), in left lung a few crackling râles, and roughened breathing in apex. Heart somewhat displaced to right. Urinalysis negative. Sputum contained tubercle bacilli. This was a serious case on arrival. He improved for a time, but later on began to retrograde, steadily going down till the day previous to death, when a sinking spell was experienced, from which he partially recovered.

Necropsy (about seven hours after death).—Rigor mortis moderate; posterior lividity not seen; calvarium was not removed. Thorax: Anterior mediastinal glands enlarged. Layers of right pleura adherent all over by firm fibrous adhesions. Left pleura adherent to chest wall, pericardium, and diaphragm. Superior and middle lobes of right lung firmly bound to chest wall and contained several large cavities filled with pus. Lower lobe and portions of upper lobes not entirely destroyed were devoid of air and filled with caseous material of granular consistence. Left lung had small cavity in apex. Pleura covering left apex was scarred in radiating lines. Entire upper lobe infiltrated with caseous material. Lower lobe showed miliary nodules throughout. Small amount of frothy fluid pressed from cut surface. The smaller bronchi contained pus. Heart of soft consistence. Anterior coronary artery twisted in course. Aortic and pulmonary valves competent. Right side of heart presented evidences of dilatation, with hypertrophy. Tricuspid orifice admitted four fingers readily. Left heart normal throughout: mitral orifice admitted three fingers. Endocardium of entire heart smooth and shining. Myocardium at interventricular septum showed white lines, indicating fibrous change. Beginnings of aorta and pulmonary arteries smooth. Layers of pericardium free. The pericardial cavity contained a small amount of straw-colored fluid. Tongue soft and flabby and very pale on cut section. Mucous membrane of almost entire larynx eroded. At site of erosions were nodular swellings of large pea size. Edges of ulcerations indefinite and the bordering mucous membrane swollen. Vocal cords, true and false, entirely destroyed. Tracheal mucous membrane strongly injected and covered with purulent mucus, but was intact. Mucous membrane of œsophagus pale, but smooth. Peribronchial lymph glands enlarged and deeply pigmented. Abdomen: Peritoneum smooth and shining. Pelvis contained some fluid. Great omentum covered intestines in front. Separable fibrous adhesions between right lobe of liver and diaphragm. Spleen adherent at posterior border and to tail of pancreas and splenic flexure of colon. Splenic substance softened and showed several small caseous areas, especially numerous just beneath capsule. Kidneys of small size and had adherent capsules. Cortical substance narrowed. Glomeruli showed as glistening points. Cortical markings indistinct and points of fibrosis present. Suprarenal capsules normal. Urinary bladder contained a small amount of urine. Organs of generation normal. Stomach normal on peritoneal surface. Liver shows the centers of the lobules to be darker than those of the periphery. Pancreas adherent to spleen. Throughout ileum tubercular infiltrations of varying size, showing tendency to encircle the bowel wall. Lymph channels running from these points to the omental lymph glands were infiltrated and nodular. Lymph glands enlarged and caseous. Tubercular foci especially numerous near ileo-cæcal valve. Beginning of appendix and adjacent cæcal wall in same condition. Large intestine contained smaller tubercular foci, more scattered. Summary: Tuberculosis of superior and middle lobes of right lung and upper lobe of left. Obliterative fibrous pleuritis. Miliary tuberculosis of lower lobes of both lungs, spleen, intestines, and lymph glands generally. Passive congestion of liver. Chronic interstitial nephritis. Tubercular ulceration of larynx.

C. R.
P. M. C.

T. W. S.; age, 33 years; nativity, Sweden; was admitted to the United States Marine Hospital, port of San Francisco, Cal., May 19, and died May 21, 1901.

History.—Two months prior to admission patient caught a bad cold. Since then he had lost about 15 kilos in weight and became extremely emaciated and weakened.

[illegible] hemorrhages, but for some time had had night sweats. Patient [illegible] for these two months. Complained also of great dyspnœa. Had [illegible]. All the physical signs of cavity were found in the left lung about [illegible]. There was dullness on percussion over both apices and on [illegible] were heard all over the lung. Sputum was very thick and ropy [illegible] a large amount of elastic fibrous tissue, bacilli tuberculosis, strep[illegible] and staphylococci. Patient was put on stimulants, with easily digestible [illegible] sedative expectorant, but grew weaker and died May 2[illegible], 190[illegible], at 10 [illegible].

[illegible] *[illegible] after death.*—Body that of a young adult white male, [illegible]. Rigor mortis well marked. [illegible] not well marked. [illegible] Weight [illegible] grams. Dura mater adherent [illegible] substance at quadrate [illegible] hemisphere. Pericardium contained about [illegible] of serous fluid. Weight [illegible] grams; [illegible] engorged, heart muscle pale and poorly nour[illegible]. Valves are normal. All the large vessels contain large amounts of dark [illegible]. Left lung, Weight about [illegible] grams; pleura [illegible] at base [illegible]. Lung adherent in several places by [illegible] bands and cov[illegible]. There was a large cavity in the middle lobe, filled [illegible]. The [illegible] presented numerous [illegible] degeneration. Right [illegible] Weight [illegible] grams; presented adhesions at the base. Right bronchus [illegible]. Lung congested and œdematous and studded with tubercles. Weight [illegible] grams; pale, firm, wave edge well marked. Right lobe [illegible] was [illegible]. Stomach [illegible] was [illegible] and [illegible] undigested food. Spleen, Weight [illegible] grams, slightly [illegible]. Left kidney, Weight [illegible] grams, [illegible] capsule [illegible] mark[illegible] [illegible]. Right kidney, Weight [illegible] grams [illegible] left kidney. [illegible] normal. Intestines normal.

L. [illegible]
[illegible] W. [illegible]
J. M. G[illegible]

[illegible]

[illegible] age 2[illegible] years; nativity Ireland [illegible] United States Marine [illegible] February [illegible] died April [illegible].

[illegible]

Patient was discharged [illegible]

[illegible] tubercle of mesentery. [illegible]

increasing in size. Temperature ranges between 37° C.–38° C., but the pulse is becoming more rapid. Sedatives are necessary to allay the pain in hip and thigh. Patient finally became extremely emaciated, and died April 14, 1901.

Necropsy (eleven hours after death).—Body is pale, except posteriorly, where blood has gravitated. Abdomen distended. Tumor seems to fill left half of cavity. The incision made from ear to ear was almost bloodless. Skull cap glistening white. Very little blood in longitudinal sinuses. Cerebral spinal fluid apparently normal in appearance, but reduced in quantity. Dura readily removed from brain. Aside from a general dryness of the tissues, nothing abnormal was found in the brain. Incision from chin to symphisis pubis showed superficial adipose tissue almost entirely wanting. As abdomen was opened, bloody serum followed the knife, part of which was gelatinous in consistency. The lungs were not collapsed. Right lung free; there were a few pleuritic adhesions on left side. On removal and section both were in practically the same condition, congested and studded with tubercles varying in size from 1 cm. to 5 cm. in diameter, none of which had broken down. Weight; right, 640 grams; left, 780 grams. Pericardium normal; 20 c. c. of fluid. Heart soft and pale; weight, 220 grams. Ante and post mortem clots in all the cavities. Valves normal. Aorta normal. The tumor occupying the left side of the abdomen was found to be a tubercular mass, chiefly involving greater omentum. The upper central portion lay between the stomach and transverse colon, separating them 12 cm. The wall was easily ruptured with the fingers, and a quantity of purulent, broken down omental tissue, about 1,000 c. c., was taken out with the hands. Laterally, between the descending colon and the parietes, there was another and even larger collection of the same material. The abdominal contents were not adherent, except in the immediate vicinity of the tumor, and the adhesions were readily broken up, leaving the viscera apparently normal and showing that the process had been very acute. Spleen 10 cm. in length, 7 cm. in breadth; color dull gray, capsule slightly wrinkled; on section rather dry; weight, 130 grams. Left kidney 12 cm. long, 6 cm. broad, and 3 cm. thick; capsule strips readily. Numerous small hemorrhagic spots beneath capsule. On section a small quantity of turbid urine escaped from pelvis, the walls of which seemed to be thickened and to have encroached upon the medullary substance. Cortical and medullary portion pale. Weight, 120 grams. Right kidney a trifle larger than left, but otherwise presented no marked difference; weight, 140 grams. Bladder contained 100 c. c. clear urine and was apparently normal. Prostate gland not enlarged. Right testicle normal in size and appearance. Stomach contained about 300 c. c. fluid. Mucous membrane covered with a thick, gray coat. Small intestine contained a moderate amount of yellowish fluid. Mucous membrane pale and apparently normal. Large intestine presented no abnormalities until the descending colon was reached, the walls of which were thickened and contracted to about one-half its normal caliber. It was filled with small, hard, fecal masses. No ulcers on the mucous membrane. Liver firm and pale. Section shows it to be dry and studded with tubercular masses, varying in size from 5 cm. to 3 cm. in diameter. The larger ones had begun to soften. Weight, 1,540 grams. Mesenteric and retroperitoneal glands generally enlarged.

J. G.
E. K. S.

Acute miliary tuberculosis.

E. G.; age, 37; nativity, Ireland; admitted to United States Marine Hospital, Baltimore, Md., December 14, 1900; died March 10, 1901.

Family history.—Both mother and father living and well, aged 63 and 75, respectively; has four brothers and three sisters, all of whom are living and well.

Personal history.—Habits are fairly good. Had the usual diseases of childhood. Syphilis ten years ago. Present illness started one week before admission to hospital, when the patient was taken with a sudden stitch-like pain in the left side near the nipple, exaggerated by deep breathing and coughing. When admitted the condition had been gradually growing worse, although the patient was not extremely uncomfortable. Inspection showed a moderate degree of immobility in the right chest, with a slight bulging of the intercostal spaces. Tactile fremitus diminished. Percussion note flat all over right chest, not changing with position of patient. Auscultation revealed breathing of a tubular character in the extreme upper axillary region. Left lung shows exaggerated respiratory sounds. Apex beat displaced to the left. Temperature, 39.6° C.; pulse, 104; respiration, 26. On December 17 the right pleural cavity was aspirated and 400 c. c. of serous fluid removed. On December 22 the chest was again tapped and 1,600 c. c. of fluid removed. After each aspiration the patient seemed to feel

[illegible] This process was repeated March [illegible] drawn off. [illegible] the patient was [illegible] [illegible] ing remis- [illegible] [illegible] but [illegible] was [illegible] for an almost entire [illegible] in breathing during the [illegible] of the disease [illegible] there was scarcely any pain except during [illegible] pain in the head was complained of. From the [illegible] the patient grew slowly though steadily worse, but as far as [illegible] the [illegible] did not change. There were several irregu- [illegible] a decidedly profuse, cold perspira- [illegible] was [illegible] before death.

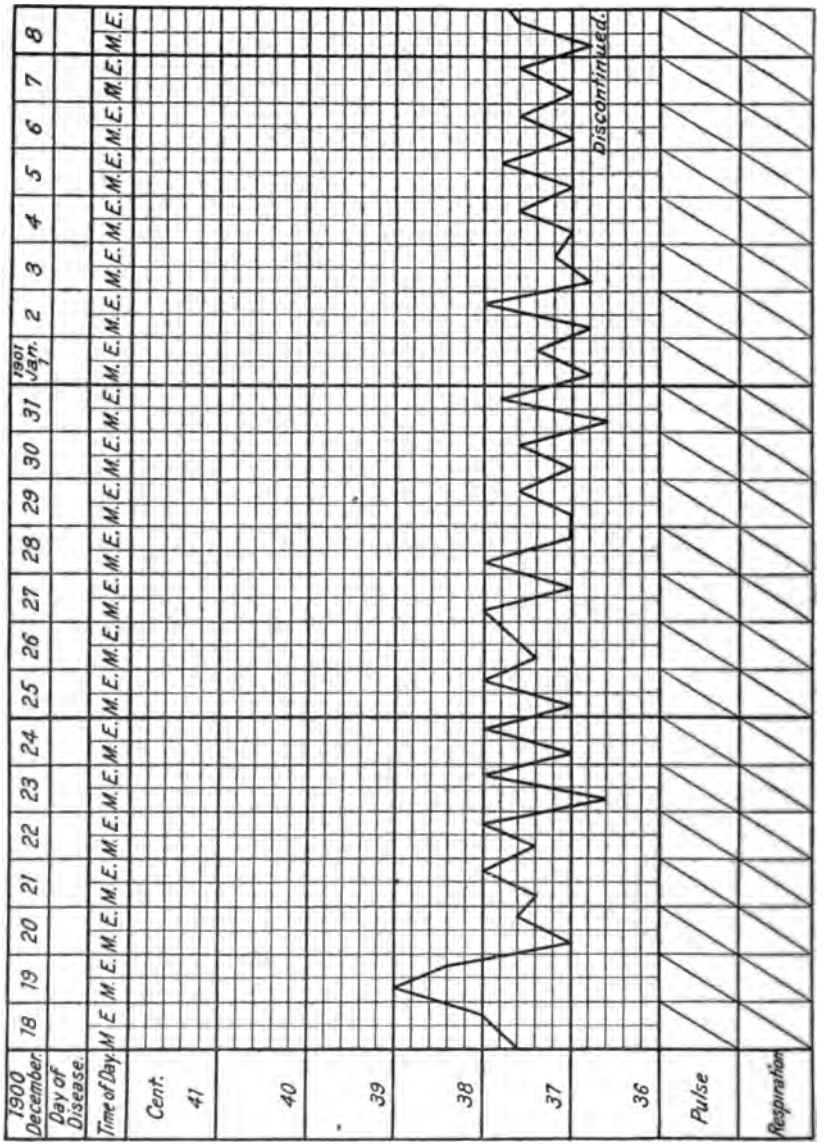
[illegible] Height, 6 feet; general nourishment poor. [illegible] Heart: Weight, 365 grams, [illegible] valves competent. [illegible] and [illegible] Left: weight [illegible] grams. [illegible] previously [illegible] Right [illegible] compressed [illegible] lung. [illegible] Left [illegible] contained [illegible] The diaphragm [illegible] The [illegible] Weight [illegible] Brain: Weight [illegible] grams [illegible] otherwise [illegible]

W. [illegible] B.
E. W. B.

[illegible] United States [illegible]

[illegible]

c. c. of serous fluid. Liver: Weight, 1,300 grams, slightly congested, otherwise apparently normal. Gall bladder distended with bile, but its duct was patulous. Spleen: Weight, 120 grams; quite firm, but malpighian bodies were indistinct. Kidneys: Right, weight, 170 grams; left, 160 grams, in every way similar. Capsules strip readily; surfaces smooth; cut section rather dark; medullary rays well marked; malpighian pyramids darker than normal. Intestines: Peritoneum



apparently normal; mucous membrane congested and several tubercular ulcers in ileum. Bladder distended with urine; walls normal.

Microscopical report.—Pericardium: Appears somewhat thickened and its surface is covered with a layer of fibrin. It is infiltrated with lymphocytes. The subpericardial areolar tissue is increased in amount and some of the flat cells are atrophic in character. Heart: Over the greater portion of the section the muscle

[illegible]

J. M. G.
A. M. M.

[illegible]

lobe and throughout left lung; heart apparently normal; urinalysis negative; sputum contained many tubercle bacilli; afternoon fever. This was a very serious case on arrival, and a fatal termination was expected speedily. Whisky and strychnia were administered as indicated, and the latter probably prolonged life several days. Weakness and dyspnœa increased daily till death occurred, as given above.

Necropsy (thirteen hours after death).—Calvarium not removed. Thorax: Anterior mediastinum contained enlarged glands. Heart somewhat enlarged and flabby. Right ventricle dilated; left normal; all valves normal. Pericardium distended with about 200 c. c. of clear straw-colored fluid. Both lungs consolidated nearly all over. Pleural cavities obliterated by firm adhesions. Great vessels and nerve trunks normal. Diaphragm adherent to bases of lungs. Abdomen: Omentum normal. Spleen slightly enlarged and congested. Kidneys, suprarenal capsules, urinary bladder, organs of generation, rectum, duodenum, stomach, and gall ducts normal. Liver enlarged and congested. Pancreas and solar plexus normal. Mensentery loaded with tuberculous glands. Small and large intestines in places showed transverse tubercular infiltration. Great vessels normal. Summary: Dilatation of right ventricle, pericarditis with effusion, tuberculosis of lungs, adhesion of pleural layers, congestion of liver and spleen, tuberculosis of mesentery and intestines.

C. R.
P. M. C.

E. W. (colored); age, 25; nativity, Indiana; admitted to United States Marine Hospital, Fort Stanton, N. Mex., January 29, 1901; died May 13, 1901.

Previous history (taken from clinical notes of medical officer in command at New Orleans, La.).—Admitted to hospital December 25, 1900. Family history negative. Personal history, measles during childhood; gonorrhœa several times in last four years. Present sickness began about three months ago with cough, which has been getting worse. Has expectoration, fever, and night sweats. Has lost 16 pounds in weight. Physical examination shows emaciation, diminished expansion on left side, increased fremitus on right side, impaired resonance over right apex, with pain on percussion; broncho-vesicular breathing at right apex. Tubercle bacilli and other forms of bacteria in sputum. Case has not improved in this hospital.

Condition on arrival at Fort Stanton: Weakness, hoarse voice, dysphagia, poor appetite, night sweats, emaciation, diminished movements of right chest, typical chest, nails, and gums. Vocal fremitus greater on right side of chest. Dullness in right apex and upper lobe and in left base. Tenderness on right side all over and in left base. In right upper lobe and apex crackling râles and bronchial breathing. In middle lobe a large cavity anteriorly with gurgling râles; posteriorly bronchial breathing and crackling râles. Left lung shows harsh respiration throughout and crackling râles in base. Heart apparently normal. Urinalysis negative. Sputum contained many tubercle bacilli and various cocci. Blood examination revealed many plasmodia. This was a bad case when he first arrived and steadily lost ground. The throat was very painful and gave much trouble. March 3 a severe hemorrhage occurred. Insomnia was experienced and was hard to overcome. Death occurred May 13, 1901.

Necropsy (about sixteen hours after death).—Calvarium not removed. Rigor mortis fairly well shown. Body much emaciated. Larynx shows mucous membrane in front swollen and greatly eroded down to and involving the cartilaginous structure of the larynx. Both true and false vocal cords entirely destroyed. Tracheal mucous membrane congested and eroded in small pin-point areas. Œsophageal mucous membrane pale; no points of ulceration. Thyroid gland shows slight bilateral enlargement, not involving the isthmus. Thorax: Anterior mediastinum contained enlarged tuberculous glands. Heart: Right ventricle dilated and on section showed some hypertrophy of the myocardium; left ventricle of normal size. Large ante-mortem clot at beginning of pulmonary artery. Endocardium normal. All valves normal. Pericardium moderately distended with clear fluid; its layers smooth. The lungs were almost entirely infiltrated with caseous material and contained several large cavities in their apices and in other portions. The pleural cavities obliterated by firm fibrous adhesions, necessitating the opening of the lungs in situ. Great vessels and nerve trunks normal. Diaphragm adherent to bases of lungs and to colon. Abdomen: Omentum normal. Spleen adherent at posterior border. Kidneys showed indistinct cortical markings and swelling of the cortex. Suprarenal capsules show post-mortem cystic degeneration. Urinary bladder partly filled

[illegible] cause, some pain, and the spontaneous ejection of the stomach contents. [illegible] night of July 10, while endeavoring to rise from bed and walk a short [illegible], he fell heavily and could not arise, and was carried to bed. There was [illegible] of breathing, the face became livid, and suffocation imminent. [illegible] he slowly rallied, the lips and tongue being so paretic that he could not [illegible] aphasia. When seen on the 11th he was somewhat improved and [illegible] to relate his night's experience. Both lungs were becoming œdematous; [illegible] diaphragm was paretic, and there was great difficulty in breathing, which [illegible] allowed. He was still vertiginous and did not again leave his bed. The [illegible] bladder showed impaired sensation, but the musculature was unimpaired. [illegible] this time until the morning of the 14th he gradually sank, dying from [illegible] heart arrest.

[illegible] *six hours after death.* Body of fairly nourished man, rigor commencing. [illegible] pupils dilated. Owing to request of friends the examination was limited [illegible] brain. Calvarium removed, meninges slightly congested; cerebral hemispheres normal; upon lifting out the brain the left cerebellum seems increased [illegible] and its pia mater is much congested, and on lifting the little brain a round [illegible] perfectly encapsulated, appeared resting in the fourth ventricle, and soft [illegible] like debris, while in the left pedunculus of the organ, on its inferior surface, [illegible] cavity with softened walls, from which it is evident the tumor has recently [illegible] its present position. Coarse dissection shows destruction of almost all [illegible] of the passing through the middle peduncle, as well as the gray substance [illegible] surface. The cavity is lined by debris. The tumor is a [illegible] sphere, well defined, upon section it is a simple heavy mass without tissue framework; [illegible] preparations gave only debris, and although many were made it [illegible] not find the tubercle bacillus, nor was this organism found in the [illegible] of the cavity walls.

[illegible] of the case shows the commencement of cerebral symptoms in January [illegible] when this man first went to hospital but there is definite history of [illegible] asthma for fifteen years, this being accentuated during the two years [illegible] into hospital. However this asthma was peculiar in that the record here [illegible] statement at New York is that "there were no attacks of asthma [illegible] the man was in hospital from January 24 to February 4, when he [illegible] improved. His later visit from March [illegible] to April 9, to that [illegible] gave only a condition resembling cerebellar vertigo." From the microscopic appearances of the tumor it must have antedated January [illegible], the date of [illegible] phenomena. The position of the tumor in the cerebellum would [illegible] pressure upon the floor of the fourth ventricle about the origin of the [illegible] on the left side. Could this have caused the paroxysms of [illegible] asthma? It would seem that this was the case rather than to [illegible] the commencement of the new growth to have been at the time of his [illegible] the hospital at New York, his then rapidly developing [illegible] progressive degeneration.

E. W.

Tuberculosis.

[illegible] nativity Sandwich Islands, [illegible] admitted to the Marine Hospital port of San Francisco, Cal., March [illegible] discharged [illegible]

[illegible] Patient had been ill [illegible] which [illegible] up to the time of his death. [illegible] admission suffered from dyspnœa [illegible] sweats and great pain in chest [illegible] Had lost weight rapidly before illness began. Weight March [illegible]

[illegible] Inspection: Great emaciation [illegible] breathing and deficient chest expansion. Palpation: Apex [illegible] left nipple; pulsation in third left interspace [illegible] Percussion: Tympanitic [illegible] extending into axillary region of same side [illegible] and over both posteriorly. Auscultation: Amphoric [illegible] anteriorly and posteriorly; crepitant rales [illegible] over lower [illegible] was made, the bacillus having been found [illegible] was put on the usual treatment [illegible] to progress rapidly, involving the larynx [illegible] complete deafness, the physical [illegible]

rhoids. Has erosion of right vocal cord, with pain in swallowing and partial aphonia. Later a cavity discovered in right upper lobe. Tubercle bacilli found in sputum. Urinalysis negative.

F. J. T.

Physical condition as noted on arrival at Fort Stanton was as follows: Suspicious scars on legs; typical chest and nails; limited motion of right chest; hoarse voice; cough and dyspnœa; increased vocal fremitus in right lung; dullness in right lung anteriorly merging into liver dullness; posteriorly dullness in upper lobe. Crackling râles in right lung, bronchophony above, prolonged expiration, diminished breathing in base (left), in left lung a few crackling râles, and roughened breathing in apex. Heart somewhat displaced to right. Urinalysis negative. Sputum contained tubercle bacilli. This was a serious case on arrival. He improved for a time, but later on began to retrograde, steadily going down till the day previous to death, when a sinking spell was experienced, from which he partially recovered.

Necropsy (about seven hours after death).—Rigor mortis moderate; posterior lividity not seen; calvarium was not removed. Thorax: Anterior mediastinal glands enlarged. Layers of right pleura adherent all over by firm fibrous adhesions. Left pleura adherent to chest wall, pericardium, and diaphragm. Superior and middle lobes of right lung firmly bound to chest wall and contained several large cavities filled with pus. Lower lobe and portions of upper lobes not entirely destroyed were devoid of air and filled with caseous material of granular consistence. Left lung had small cavity in apex. Pleura covering left apex was scarred in radiating lines. Entire upper lobe infiltrated with caseous material. Lower lobe showed miliary nodules throughout. Small amount of frothy fluid pressed from cut surface. The smaller bronchi contained pus. Heart of soft consistence. Anterior coronary artery twisted in course. Aortic and pulmonary valves competent. Right side of heart presented evidences of dilatation, with hypertrophy. Tricuspid orifice admitted four fingers readily. Left heart normal throughout; mitral orifice admitted three fingers. Endocardium of entire heart smooth and shining. Myocardium at interventricular septum showed white lines, indicating fibrous change. Beginnings of aorta and pulmonary arteries smooth. Layers of pericardium free. The pericardial cavity contained a small amount of straw-colored fluid. Tongue soft and flabby and very pale on cut section. Mucous membrane of almost entire larynx eroded. At site of erosions were nodular swellings of large pea size. Edges of ulcerations indefinite and the bordering mucous membrane swollen. Vocal cords, true and false, entirely destroyed. Tracheal mucous membrane strongly injected and covered with purulent mucus, but was intact. Mucous membrane of œsophagus pale, but smooth. Peribronchial lymph glands enlarged and deeply pigmented. Abdomen: Peritoneum smooth and shining. Pelvis contained some fluid. Great omentum covered intestines in front. Separable fibrous adhesions between right lobe of liver and diaphragm. Spleen adherent at posterior border and to tail of pancreas and splenic flexure of colon. Splenic substance softened and showed several small caseous areas, especially numerous just beneath capsule. Kidneys of small size and had adherent capsules. Cortical substance narrowed. Glomeruli showed as glistening points. Cortical markings indistinct and points of fibrosis present. Suprarenal capsules normal. Urinary bladder contained a small amount of urine. Organs of generation normal. Stomach normal on peritoneal surface. Liver shows the centers of the lobules to be darker than those of the periphery. Pancreas adherent to spleen. Throughout ileum tubercular infiltrations of varying size, showing tendency to encircle the bowel wall. Lymph channels running from these points to the omental lymph glands were infiltrated and nodular. Lymph glands enlarged and caseous. Tubercular foci especially numerous near ileo-cæcal valve. Beginning of appendix and adjacent cæcal wall in same condition. Large intestine contained smaller tubercular foci, more scattered. Summary: Tuberculosis of superior and middle lobes of right lung and upper lobe of left. Obliterative fibrous pleuritis. Miliary tuberculosis of lower lobes of both lungs, spleen, intestines, and lymph glands generally. Passive congestion of liver. Chronic interstitial nephritis. Tubercular ulceration of larynx.

C. R.
P. M. C.

T. W. S.; age, 33 years; nativity, Sweden; was admitted to the United States Marine Hospital, port of San Francisco, Cal., May 19, and died May 21, 1901.

History.—Two months prior to admission patient caught a bad cold. Since then he had lost about 15 kilos in weight and became extremely emaciated and weakened.

increasing in size. Temperature ranges between 37° C.–38° C., but the pulse is becoming more rapid. Sedatives are necessary to allay the pain in hip and thigh. Patient finally became extremely emaciated, and died April 14, 1901.

Necropsy (eleven hours after death).—Body is pale, except posteriorly, where blood has gravitated. Abdomen distended. Tumor seems to fill left half of cavity. The incision made from ear to ear was almost bloodless. Skull cap glistening white. Very little blood in longitudinal sinuses. Cerebral spinal fluid apparently normal in appearance, but reduced in quantity. Dura readily removed from brain. Aside from a general dryness of the tissues, nothing abnormal was found in the brain. Incision from chin to symphisis pubis showed superficial adipose tissue almost entirely wanting. As abdomen was opened, bloody serum followed the knife, part of which was gelatinous in consistency. The lungs were not collapsed. Right lung free; there were a few pleuritic adhesions on left side. On removal and section both were in practically the same condition, congested and studded with tubercles varying in size from 1 cm. to 5 cm. in diameter, none of which had broken down. Weight: right, 640 grams; left, 780 grams. Pericardium normal; 20 c. c. of fluid. Heart soft and pale; weight, 220 grams. Ante and post mortem clots in all the cavities. Valves normal. Aorta normal. The tumor occupying the left side of the abdomen was found to be a tubercular mass, chiefly involving greater omentum. The upper central portion lay between the stomach and transverse colon, separating them 12 cm. The wall was easily ruptured with the fingers, and a quantity of purulent, broken down omental tissue, about 1,000 c. c., was taken out with the hands. Laterally, between the descending colon and the parietes, there was another and even larger collection of the same material. The abdominal contents were not adherent, except in the immediate vicinity of the tumor, and the adhesions were readily broken up, leaving the viscera apparently normal and showing that the process had been very acute. Spleen 10 cm. in length, 7 cm. in breadth; color dull gray, capsule slightly wrinkled; on section rather dry; weight, 130 grams. Left kidney 12 cm. long, 6 cm. broad, and 3 cm. thick; capsule strips readily. Numerous small hemorrhagic spots beneath capsule. On section a small quantity of turbid urine escaped from pelvis, the walls of which seemed to be thickened and to have encroached upon the medullary substance. Cortical and medullary portion pale. Weight, 120 grams. Right kidney a trifle larger than left, but otherwise presented no marked difference; weight, 140 grams. Bladder contained 100 c. c. clear urine and was apparently normal. Prostate gland not enlarged. Right testicle normal in size and appearance. Stomach contained about 300 c. c. fluid. Mucous membrane covered with a thick, gray coat. Small intestine contained a moderate amount of yellowish fluid. Mucous membrane pale and apparently normal. Large intestine presented no abnormalities until the descending colon was reached, the walls of which were thickened and contracted to about one-half its normal caliber. It was filled with small, hard, fecal masses. No ulcers on the mucous membrane. Liver firm and pale. Section shows it to be dry and studded with tubercular masses, varying in size from 5 cm. to 3 cm. in diameter. The larger ones had begun to soften. Weight, 1,540 grams. Mesenteric and retroperitoneal glands generally enlarged.

J. G.
E. K. S.

Acute miliary tuberculosis.

E. G.; age, 37; nativity, Ireland; admitted to United States Marine Hospital, Baltimore, Md., December 14, 1900; died March 10, 1901.

Family history.—Both mother and father living and well, aged 63 and 75, respectively; has four brothers and three sisters, all of whom are living and well.

Personal history.—Habits are fairly good. Had the usual diseases of childhood. Syphilis ten years ago. Present illness started one week before admission to hospital, when the patient was taken with a sudden stitch-like pain in the left side near the nipple, exaggerated by deep breathing and coughing. When admitted the condition had been gradually growing worse, although the patient was not extremely uncomfortable. Inspection showed a moderate degree of immobility in the right chest, with a slight bulging of the intercostal spaces. Tactile fremitus diminished. Percussion note flat all over right chest, not changing with position of patient. Auscultation revealed breathing of a tubular character in the extreme upper axillary region. Left lung shows exaggerated respiratory sounds. Apex beat displaced to the left. Temperature, 39.6° C.; pulse, 104; respiration, 26. On December 17 the right pleural cavity was aspirated and 400 c. c. of serous fluid removed. On December 22 the chest was again tapped and 1,600 c. c. of fluid removed. After each aspiration the patient seemed to feel

[illegible] This process was repeated March [illegible] drawn off. [illegible] time the patient was in the hospital there was a morning remission [illegible] elevation of temperature, varying from [illegible] to [illegible] but [illegible] in degree. The case was remarkable for an almost entire [illegible] inconvenience in breathing during the whole course of the disease [illegible] there was scarcely any pain except during [illegible] when constant pain in the head was complained of. From the [illegible] the patient grew slowly though steadily worse, but as far as [illegible] the physical signs did not change. There were several irregular [illegible] chills, and at intervals a decidedly profuse, cold perspiration [illegible] was retained until two days before death.

[illegible] Height 6 feet; general nourishment poor; [illegible] slight; [illegible] very slight. Heart: Weight, 365 grams; [illegible] somewhat flabby; all valves competent. Nares, larynx, and [illegible] Lungs: Left, weight, 670 grams. The entire lung profusely [illegible] with small tubercular deposits. Right, lung compressed; some tubercular [illegible] in its substance, but not nearly as many as in left lung. [illegible] and fibrous. Left pleura shows no adhesions; [illegible] with flakes of recent exudate. The cavity contained [illegible] c.c. [illegible] adhesions posteriorly and at the apex. The diaphragmatic [illegible] presented some small tubercular deposits. The [illegible] were normal. Liver and pancreas were normal; [illegible] covering of liver was slightly involved with tubercle. [illegible] weight [illegible] grams; capsule [illegible] cortex thin; slight passive [illegible]. Right, weight, 165 grams; capsule [illegible] adherent; cortex thin; [illegible] congested. Spleen: Weight, [illegible] grams; congested pulp [illegible]. Brain: Weight, 1,650 grams; slightly edematous, otherwise [illegible] are normal.

W. C. B.
B. W. B.

Case [illegible]

[illegible] years; nationality, Norway; was admitted [illegible] United States [illegible] San Francisco, Cal., November [illegible] and died March [illegible], 1901. [illegible] of entering hospital patient complained of pain in the chest, [illegible] expectoration. He had been [illegible] about three [illegible] complained of dyspnœa. Examination [illegible] Lungs: [illegible] over [illegible] Heart: [illegible] Abdomen: [illegible] Urine: [illegible] Sputum: [illegible] cough, [illegible] Mental [illegible]

Inspection: Patient was quite [illegible] Palpation: [illegible] Percussion: [illegible] Auscultation: [illegible] Vocal fremitus [illegible] Auscultation: [illegible] Heart: [illegible] Abdomen: [illegible] Urine: [illegible] Sputum: [illegible] Mental [illegible]

[illegible] Heart: Weight [illegible] Several [illegible] Lungs: Weight [illegible] Liver: Weight [illegible] Spleen: [illegible] Kidneys: [illegible] Brain: [illegible] grams [illegible] [illegible] condition similar [illegible]

losis, which seems to be clearly shown in the clinical notes from St. Louis. At first we were unable to demonstrate the bacilli in this man's sputum, and when they were found they were few in numbers and stained very faintly. During his stay at the sanitarium his cough had almost disappeared and he only raised a slight amount of mucus in the mornings. The lungs were infiltrated with carbon dust, showing that the man had been a fireman, and there were pleuritic adhesion bands on both sides; otherwise the play of the lungs was free and normal. These pleuritic bands were of great interest to us. They had pulled out into round cords, and some of them were 6 and 8 inches long, and they did not restrict the movement of the lungs at all. The bronchial glands were hard and indurated and contained deposits of coal dust. We did not mount sections from the glands, as they seemed to be typically tuberculous. In the right lung was found a small cavity, with wide bands of connective tissue running through in several directions. This cavity contained some purulent matter, and was probably the source of the small amount of sputum and the slight cough. This cavity was nearly healed. There were two other small tubercular deposits which were entirely encapsulated. In the left lung there were two small deposits also encapsulated. There was a small portion of the apex of the left lung which was cup-shaped from the outside, and, in going into it, it was found to be a mass of connective tissue. This was probably a healed tubercle cavity. We were also able to locate the other cavity mentioned in the right lung merely by this cupping in of the lung tissue showing where the connective-tissue bands had contracted into scar tissue, inverting, as it were, the outside portion of the lung. Aside from the conditions mentioned, the lungs were perfectly normal. We found in the bronchioles and bronchi and the trachea considerable dark fluid, which had been aspirated during the vomiting spell while under anæsthesia. The heart and great blood vessels were normal. On opening the abdomen, small, hard, pearl-like bodies were noticed, studding the peritoneum in considerable numbers. They did not feel to the touch like tubercles, and they also had a whitish appearance. In the great omentum there were several indurated glands. The liver, stomach, duodenum, and pancreas, were one agglutinated mass and had to be dissected apart. The walls of the stomach were very thin and could be easily torn with the fingers. The purse-string suture inserted during the operation had held. In the dependent portion of the stomach there was a large ulceration which had nearly eroded the entire thickness of the stomach wall, the peritoneum being the only remaining portion. The cancer was of annular form, filling in the entire pyloric end of the stomach to a thickness of about one-third of an inch. A small rubber catheter could not have been passed through the pylorus, and, besides, the canal was very tortuous. The upper portion of the pylorus was infiltrated, and the gall bladder was almost entirely obliterated by the deposit, except the greater extremity, which contained six small gallstones. The cancer had only infiltrated the liver superficially and had not invaded the deep structure. The head of the pancreas was badly involved. The spleen was slightly enlarged, and the suprarenal capsules were indurated.

Microscopical examination.—The sections of the tumor were found to be scirrhous.

J. O. C.

Tubercle of the lungs.

E. W.; age, 35; nativity, Illinois; admitted to the United States Marine Hospital, Chicago, Ill., September 1, 1900, and died October 23, 1900.

History.—Father died of influenza; mother died of asthma. Two sisters died of bronchitis, and one brother as the result of an accident. The only previous illness which patient has had was malaria a few years ago. Present illness is of about one year's duration. It began with cough, which gradually increased in severity. One month ago, during a paroxysm, patient had a hemorrhage. At first bright red blood was expectorated, later dark clotted masses in considerable quantity were expelled. At present patient is weak and emaciated, has hard coughing spells, and sometimes vomits after eating; he also has anorexia, night sweats, and evening rise of temperature. Bowels are constipated. Physical examination: Defective expansion, but increased vocal fremitus over right lung; dullness over right upper lobe, more marked anteriorly; on auscultation whispered pectoriloquy and tubular expiratory breathing over upper right lobe anteriorly. Below this the sounds are distant. Tubular breathing over left upper lobe anteriorly, and posteriorly; crepitant râles heard below eighth rib posteriorly on the left side. Body shows a marked degree of emaciation. General condition is bad. Tubercle bacilla present in sputum in abundance. Treatment was purely symptomatic. The disease progressed quite rapidly, patient being confined to bed in a short time,

and had attacks of diarrhea and vomiting. Sweat profusely at night much of the time and had a harassing cough with free expectoration. Patient's weight shortly after admission was but 107 pounds. The temperature ranged from 37° to 40° C., and occasional rigors indicated further the coexistance of a mixed infection. Edema of the ankles, hoarseness, and weakness of the voice, and marked general debility developed as the disease progressed, and patient died slowly of exhaustion.

Necropsy *eighteen hours after death.* Body that of an adult white male, of medium stature, extremely emaciated; post mortem rigidity present; post-mortem staining irregularly distributed in patches over pendent portions of the body. On anterior surface of abdomen are dark subcutaneous spots, resembling petechiæ, arranged in wide bands extending in various directions. On making the median incision no subcutaneous fat was found lacking. The abdominal cavity contained [illegible] of clear serum. Chest firm, extensive pleuritic adhesions on both sides, lungs pigmented on the surface, and degenerated in the interior to such an extent as to preclude their removal intact; the apices were excavated, and the right upper lobe showed all of both organs were the seat of this peculiar infiltration [illegible] which showed hypostatic congestion. Heart: Pericardium contained [illegible] of straw colored fluid; organ small; weight, 189 grams; valves normal; aorta atheromatous. The kidneys showed a strange anomaly; the organs were united in one by a connecting pons of kidney like structure, but both were of the pyramidal part, they formed a horseshoe or semilunar [illegible] the upper portion of the abdomen, the individual organs being situated [illegible] transverse; combined length was 31 cm.; weight, 320 grams. The organs did not seem to be the seat of any pathological change other than a right sided [illegible], the width of which [illegible] pus. The liver weighed 1,120 grams; was firm, hard, somewhat granular, lobulated, cirrhotic, and in places fatty; it also showed extensive [illegible] in the interstitial connective tissue. The gall bladder was filled with [illegible] particles. The spleen weighed 320 grams, was large, [illegible] dark and friable on section; pancreas weight, 80 grams, normal. The [illegible] showed evidence of ulceration within. Scattered [illegible] areas which [illegible] serous coat. The [illegible] regular caseation, [illegible] the characteristic [illegible] ulceration was revealed in various stages, mostly advanced. The [illegible] and the characteristic [illegible] appearance. Other abdominal viscera showed no macroscopic changes. [illegible] examined.

F. J. T.
H. W. S.

[illegible] Swedish, admitted to United States Marine Hospital [illegible] San Francisco, N. Mex., May [illegible], died September [illegible], 1900.

[illegible] from the Marine-Hospital at San Francisco.

[illegible] United States Marine-Hospital, San Francisco, Cal., January [illegible], [illegible] following history was obtained:

[illegible] Father died accidental. Brothers and sisters alive and well. [illegible] Had the diseases of childhood. Father died over two years ago [illegible]. Was in this hospital in November, 1899. [illegible] Previous menstrual history left.

[illegible] complaints of pain in lower part [illegible] and in coughing in deep inspiration [illegible] Hospital night sweats [illegible]

[illegible] Right side of chest [illegible]

[illegible] Right side of chest [illegible]

[illegible] Pain in chest improved [illegible] Hospital [illegible] had a hemorrhage from nose [illegible] [illegible]

[illegible] Physical examination shows [illegible] extending down [illegible] Right [illegible] Pulse [illegible] Respiration [illegible] from the over left upper [illegible] right [illegible] Auscultation: Sound [illegible] right [illegible] extending upward from base [illegible] Heart normal. Left lung dull at base. Pectoral [illegible]

[illegible] Weight same as on admission. [illegible]

[illegible] Physical examination [illegible] breathing and auscultatory rales [illegible]

"*February 20.*—After repeated examinations tubercle bacilli found. Temperature had ranged from 37 to 38.5.

"*March 2.*—Discharged improved. Readmitted for tubercle.

"*March 3.*—Examination shows on inspection: Expansion of chest fairly good, right better. Palpation—vocal fremitus normal. Percussion—slight dullness of left lung posteriorly at base. Auscultation: Respiratory sound exaggerated over right chest, suppressed over left lung posteriorly at base; vocal resonance diminished over left lung at base posteriorly.

"*March 4.*—Some swelling of right epididymis.

"*March 10.*—Swelling of epididymis and testicle continues; now decided enlargement; quite painful.

"*March 15.*—Swelling somewhat increased in size and more painful; pain is also prolonged along cord.

"*March 19.*—Pain and swelling less marked. Patient weighs 163 pounds.

"*March 23.*—Passed two or three yellowish bodies, the size of a pea, by urethra. Aspiration with hypodermic over fluctuating point gives a small amount of bloody effusion, but no tubercle bacilli found in it.

March 27.—Abscess pointing at upper end of testicle opened and about 10 c.c. of pus obtained.

"*March 28.*—Tubercle bacilli found in pus from testicle.

"*April 1.*—Testicle remains enlarged and pus is discharged from sinus in testicle.

"*April 9.*—Testicle removed (chloroform anæsthesia). Pus and caseous material found in epididymis; testicular substance riddled with tubercles. Gauze drain inserted.

"*April 20.*—There has been some discharge of pus, but the wound is now granulating nicely.

"*April 30.*—Is still troubled with deficient hearing and discharge from left ear.

"*May 7.*—Patient is well nourished; coughs but little; temperature has been normal for several weeks.

"J. M. G."

Condition when admitted to the sanitarium was as follows:

June 26.—Physical examination: Inspection shows full chest, typical nails and gums, movements of chest even, skin in good condition. Palpation—vocal fremitus nearly absent in bases of both lungs to above level of nipples. Percussion—no positive dullness can be demonstrated in left apex, as clinical sheet from San Francisco mentions; marked dullness in bases of both lungs to about level of nipples. Auscultation—vesicular murmur very faint in lower half of each lung, anterior; posteriorly, bronchial breathing at base of right and cogwheel respiration at base of left; roughened breathing in the other portion of both lungs; heart apparently normal in all respects.

From the very start this patient complained of severe and persistent headaches (frontal), which later on became general. He was always dull and stupid and inclined to be filthy in his habits, and he probably swallowed the sputum from time to time. On July 21 examination was made of left ear, and it was found that the eardrum had been previously destroyed. The headache at this time was very severe, and careful watch was kept over the mastoids, thinking that the headaches might be caused from mastoid disease. On July 24, after several chills, with high temperature, he was found to have a large tubercular pneumonia at the base of the left lung. This condition seemed to grow worse. On August 23 tubercular pneumonia developed in base of right lung. At this time the man became very sick; was delirious and hard to control; did not respond to stimulation. The fever gradually subsided and the temperature ran subnormal to the day of his death. Died from exhaustion.

Necropsy (eighteen hours after death).—Rigor mortis marked; body well nourished; no scars except in scrotum, showing where testicle had been removed at previous operation. The calvarium was removed, and the dura was found adherent in several places, especially along the longitudinal sinus. Near the sinus were abscesses which were cut into, but unfortunately none of the pus was secured for microscopical examination. Near the longitudinal sinus the dura was also adherent to the arachnoid, and the arachnoid and pia were firmly bound down to the brain throughout. The arachnoid was enormously distended with a clear white serum which contained a few flocculi. The blood vessels of the brain were distended to such an extent that it must have caused a certain amount of compression. It was noticed that the spinal canal was also greatly distended with this clear fluid. On turning the brain out and severing the spinal cord some of the fluid was collected on slides for microscopical examination. In section of the

[illegible] the tissue was congested and soft. The lateral ventricles [illegible] were distended with the clear fluid named above. The [illegible] did not seem to be inflamed, though a careful examination [illegible] as the spinal column was not opened except from above. [illegible] to find any other severe brain lesions, except the delirium [illegible]. There was no paralysis of any kind. The thorax was [illegible] parietal layers of the pleurae were found firmly adherent throughout [illegible] firmly bound down and adherent to the diaphragm. The [illegible] pleural section, to be one mass of miliary tubercles. [illegible] would float in water, except a section from the lower portion [illegible]. There were several small pus cavities shown in the [illegible]. The right lung had several small pus cavities in the [illegible] of infection and the other portion of this lung was [illegible] with miliary tubercles. This condition was a typical [illegible] it is well to note that this condition can deceive one [illegible] as in lobar pneumonia. The bronchi and [illegible]. In the right apex nature had originally [illegible]. The bronchial glands were enormously [illegible]. The heart and pericardium and the great blood vessels [illegible] examination showed the mesentery and peritoneum [illegible]. There were several large glands in the mesentery of [illegible] the intestines in many places [illegible] small white [illegible] of general miliary tuberculosis. The [illegible]. The liver was also [illegible] and showed considerable [illegible] substance. Most of the [illegible] tissue, however, was [illegible]. The spleen was about twice its normal [illegible]. The right kidney was much enlarged and was of the [illegible] was very much congested and there was pus [illegible] under the capsule [illegible]. There were distinct tubercles [illegible] the right of the kidney [illegible] was much larger and damaged worse. This [illegible] lateral apices were very much [illegible] and totally infected with tubercles. This condition [illegible] post-mortem examination. The bladder was [illegible] which was drawn [illegible] and gave the characteristic [illegible]. The right testicle [illegible] was still a small [illegible] and with miliary tubercle [illegible].

[illegible] Tubercle bacilli were found in the aspirated fluid, [illegible] of lung tissue and in sections of the separated [illegible] very badly infected.

J. O. C.

[illegible] Russia was admitted to the United States Marine [illegible] and died November [illegible]. The [illegible] the hospital complaining mostly of cough and [illegible]. The latter seemed [illegible] was very [illegible] [illegible] was suffering from [illegible]. He [illegible] tuberculosis [illegible]. He [illegible] the extreme and cold [illegible]. He was very dyspnoic [illegible] the disease [illegible]. The right [illegible] [illegible] with tubercular [illegible]. He gradually grew worse [illegible] November [illegible].

bed, and there he remained till he died from sheer exhaustion on the 16th of November at 8 p. m.

Necropsy (twelve and a half hours after death).—Shows the body of a poorly developed, poorly nourished, adult, white male, about 1.6 meters high and weighing 47 kilograms. Rigor mortis has entirely disappeared in the upper limbs and is very slight in the nether limbs. Hypostasis is very slight. A few scars, circular or oval in shape, are present over each knee. No œdema is present. The subcutaneous fat is almost entirely absent, the small amount present being very dark in color. The superficial lymphatic glands are not enlarged, with the exception of the two highest anterior cervicals. The abdominal cavity contains about 1,000 c. c. of clear serous fluid. The omentum is almost devoid of fat, but is otherwise normal. The anterior mediastinum is normal, except that it contains a few tubercular glands. The pericardial cavity contains about 50 c. c. of clear serous fluid, but is otherwise normal. The right pleural cavity is entirely obliterated by stringy adhesions. These are especially dense and firm over the right apex. The left pleural cavity is almost in the same condition, except that the apex of the lung is almost entirely free of adhesions. The right lung can not be removed because of the dense, firm adhesions which bind it to the thoracic wall. Its surface is nodular with tubercles. The apex is entirely consolidated, and on section is found to contain a large sinuous cavity, which is filled with a greenish creamy pus. The left lung weighs 760 grams. Its apex is almost entirely consolidated, as is also its base anteriorly. Posteriorly it is crepitant and emphysematous. The bronchial glands are enlarged. The cut surface is studded with tubercles, some showing peripheric masses of pigmented scar tissue. The tendency to breaking down is more marked at the center of the lung than at the base. The heart weighs 190 grams. It is small and pale and shows on the anterior surface of its pericardium an irregular white milk spot 5 cm. in diameter. Its apex is made up entirely of the left ventricle. The aorta is small and elastic and shows a few thickened spots on its intima. The left ventricle contains one lardaceous clot. Its muscle is pale and flabby. The aortic valves are normal, as are also the mitral, except that they show a few patches of sclerotic thickening. The right ventricle is thin and flabby and contains also one lardaceous clot. The pulmonic and tricuspid valves are normal. The right auricle is slightly dilated. The liver weighs 1,250 grams It is small in size. Its outer surface presents nothing abnormal. Its cut surface shows the center of the liver lobules to be somewhat depressed and purple in color. The pancreas is normal. The spleen weighs 150 grams. Its outer surface presents no abnormality except a few white thickened spots on the capsule. Its dimensions are 13.2 cm. long by 8.2 cm. wide by 3.8 cm. thick. Its consistency is normal. Its cut surface is dark reddish-gray in color. The trabeculæ and Malpighian bodies are quite distinct. The right kidney weighs 175 grams. It is quite small. Perinephritic fat is almost entirely wanting. The capsule is very adherent over its anterior portion. The outer surface is pale and fairly smooth. A small stellate depression, red at the bottom, is seen on its convex border. The cortex is thin and fairly translucent. The pelvis of the kidney is normal, except that it is devoid of fat. The consistency of the kidney is firm. The left kidney weighs 173 grams. Its capsule strips with some difficulty. Its outer surface is very finely granular; otherwise it is similar in all respects to its fellow. The stomach is small. Its mucous membrane is pale. There are some adhesions between this organ and the transverse colon. The intestines are moist and almost collapsed. Their mucosa is dotted with shallow oval ulcers, whose long diameter runs parallel to the transverse diameter of the bowel. The mesenteric glands are enlarged and caseated. The dura and pia maters are normal. The subpial fluid, however, is very excessive in amount and elevates the pia mater considerably from the surface of the brain. The fluid is clear and serous. The brain weighs 1,400 grams. Its cut surface is slightly œdematous, but otherwise shows no abnormality. The cause of death is exhaustion incident upon tubercle of the lung and the bowel.

M. E. L.
J. M. G.

Microscopic report.—Lung: The specimen is almost entirely consolidated and consists of illy defined necrotic areas, with peripheric masses of lymphocytes and epithelioid cells. Giant cells are present, but not in very large numbers. The surrounding lung is hyperæmic. Liver: Upon examination with the low power objective, the center of each lobule presents a brown appearance. More minute examination shows this to be due to the fact that the cells in the center of the lobules are filled with fine, brown granular pigment; otherwise the liver is nor-

Pancreas is normal. Kidney: At regular intervals beneath the capsule are triangular areas in which the interstitial connective tissue is hypertrophic and tubules atrophic. Between these areas the tubules are large and appear dilated but otherwise normal. The remaining parenchyma presents no [illegible]. Here and there one may see a dilated tubule or a small cyst containing coagulated fluid, and here and there a tubule containing a hyaline cast. Malpighian bodies are small and shrunken from their capsule. Spleen: Capsule slightly thick and dense, otherwise normal. Trabeculae in like condition. Malpighian bodies are irregular in outline and closely packed. The Malpighian vessels show a thickening of the intima. Pulp is hyperemic. The cells are largely lymphocytes and spleen cells. Fibroblasts, plasma cells and polymorphonuclears are comparatively few. In the pulp there may be seen a few small necrotic areas surrounded by a zone of lymphocytes and epithelioid cells. No cells are visible.

M. E. L.
J. M. G.

Tuberculosis of lung; pneumothorax.

[illegible] nativity, Russia; admitted to Providence Hospital, Seattle, [illegible] September 18, 1900; died November 7, 1900.

[illegible]: Patient stated that three weeks previously he had fallen down a [illegible] at which time he experienced a severe pain in left side over lower part of [illegible]. This pain was still present when application was made for treatment, and the dyspnea on exertion were the only things of which he complained. In questioning him he admitted that for three months previous to his fall he had [illegible] much with a cough.

[illegible] showed the patient to be somewhat emaciated and quite weak. [illegible] immobility of the left side of chest, with obliteration of the intercostal [illegible]; the breath sounds over this side were almost inaudible; tactile fremitus [illegible]. Apex beat of heart was displaced to the right of sternum; percussion [illegible] a tympanitic resonance over entire left side of chest; the cough sound [illegible]. There were no evidences of the presence of fluid when [illegible] to the hospital, but this gradually accumulated when succussion [illegible] a sound very like that heard when a closed cask containing but a small [illegible] of fluid is shaken. Examination of right lung showed tubercular [illegible] of the apex. Temperature on admission was 39.2° C., pulse 1[illegible]6 and [illegible] and at rest; the during the course of the disease was the rapidity of [illegible] increased. There was also an almost complete anesthesia of [illegible] part of left side of the chest. An uncontrollable diarrhea set [illegible] after his admission to the hospital, which greatly weakened the patient [illegible] stimulation and aspiration were twice performed, [illegible] being withdrawn without benefit to the [illegible] with no change in the tympanitic quality of the percussion sound. [illegible] grew gradually weaker and died November 7, 1900.

[illegible] *[illegible] after death.* Body that of a white male about 30 years [illegible] and very poorly nourished; post mortem rigidity and discoloration were [illegible].

Upon opening the chest a large quantity of fluid was escaped from the left [illegible]. Left lung was compressed into a solid mass against the upper and [illegible] of chest wall and was adherent to same. A large cavity was [illegible] the upper lobe which communicated with the pleural cavity. There [illegible] quantity of seropurulent fluid in the dependent portion of [illegible]. The left side of diaphragm was pushed upward to the [illegible] fluid. The right lung was the seat of a large cavity in the [illegible] infiltrated throughout with tubercular [illegible]. The heart was [illegible] right of middle line but was otherwise [illegible]. Liver and spleen appeared [illegible] normal. The small intestines were [illegible] many [illegible] were present. The mesenteric glands were [illegible] under [illegible]. The other organs were apparently [illegible].

D. L. R.

Tuberculosis of lungs.

[illegible] age 6[illegible] years; nativity Norway; [illegible] Boston Mass. December [illegible] [illegible]. The patient gave history of [illegible] weight; there were evidences of [illegible] being more advanced in the right and presented more [illegible]. An examination of sputum showed the tubercle bacilli present, and

Remainder of the lung is congested and œdematous; has several small cavities and hard, fibrous tubercules here and there. Right lung: Apex contains a large cavity; bronchi are congested and the bronchial glands enlarged. The remainder of the lung is in a condition similar to left. Abdominal cavity contains 600 c. c. of dark-yellow, turbid fluid. Omentum very scantily supplied with fat. Liver: Weight, 1,786 grams; outer surface normal, somewhat purple in color; cut surface purplish-brown in color, with a few yellowish-white pinhead nodules scattered over it. Gall bladder filled with dark-yellow bile; ducts patulous. Left kidney: Weight, 160 grams; perinephritic fat scanty; nothing abnormal on surface; capsule strips easily; cut surface shows cortical portion about 1 cm. in thickness; the medullary rays are quite distinct and cortical substance of normal color. The malpighian pyramids appear quite normal. There are two small cysts in the cortex and a small white spot in one pyramid. Right kidney: Weight, 140 grams; nothing abnormal on surface; capsule strips readily; section shows dark-purple color; cortex thickened and mottled, medullary rays and malpighian pyramids very indistinct. Spleen: Weight, 312 grams; size, 15 cm. long, 12 cm. wide, 7 cm. thick; quite firm in consistency; cut surface dark-purple in color, with trabecular and malpighian bodies visible. Intestines: Congested throughout, and shows many cicatrices of old ulcers, with many recent ones scattered throughout both large and small intestines. No adhesions. Mesenteric glands enlarged. Brain: Dura mater appears normal; excess of fluid in subdural space; a few adhesions over the frontal lobe. Otherwise the brain is normal.

Microscopic report.—Pericardium: This, as a whole, is very much thickened and shows an immense deposit of fibrin. Nearest the heart it consists of fibrous tissue, cells, and newly formed capillaries, thus being thoroughly organized and evidently chronic. The capillaries do not extend to the free surface, and here there are only a few cells interspersed through the fibrin, which is of later origin. At one portion is seen what, with other evidences, appears to be a tubercle. It consists of a well-circumscribed collection of epithelioid cells, lymphocytes, and connective-tissue cells in a stroma of dense fibrous tissue. Several well-defined giant cells are seen in other portions of the pericardium. Heart: The section shows a moderate amount of congestion. The cells are quite indistinct, but the nuclei appear well stained. The cross striations can not be made out. The cells in various places show a deposit of small brown pigment granules, indicative of brown atrophy. Lungs: Conglomerations of tubercles are seen in various fields, consisting of fibrous tissue, epithelioid cells, lymphocytes, and giant cells. Some of these show marked evidence of caseation, and consist of broken-down cells and nuclear débris. The remaining alveoli are dilated and emphysematous. Their walls are somewhat thickened. The bronchi are hyperæmic and in places greatly thickened. Kidneys: Both kidneys show congestion, one a great deal more than the other. The cortical portion shows at places a proliferation of connective tissue extending down as trabeculæ from the capsule, and consisting of connective-tissue cells, lymphocytes, and epithelioid cells. The section shows an immense number of lymphocytes throughout. The Malpighian bodies are in places greatly congested. The convoluted tubules over most of the field appear quite normal, but in portions there is an increase of interstitial tissue and beginning degeneration of the parenchyma cells. The conducting tubules are normal. Spleen: The trabeculæ appear greatly thickened all over the section. The Malpighian bodies are enlarged, and a few of them show hyaline degeneration. The capsule shows an increased number of connective-tissue cells. The blood vessels show thickening of the intima and adventitia. There is some slight pigmentation of the parenchyma cells. Liver: This appears normal, with the exception of a slight congestion and a beginning cyanotic atrophy.

A. M. M.
J. M. G.

Tubercle of lung and cancer of stomach.

J. T.; age, 55 years; nativity, New York; admitted to Marine-Hospital Sanitarium, Fort Stanton, N. Mex., March 17, 1900; died September 11, 1900.

The following is taken from clinical notes furnished from St. Louis:

"*History.*—Family history, negative; was a drinking man until eighteen months ago. Present trouble dates back to two weeks, which began with sour stomach and nausea after eating, though sometimes felt all right. Appetite good; can eat anything. Coffee seemed to hurt patient. Never vomited any blood. Pains radiate at times all over abdomen. A localized tenderness, which patient feels, lies in meeting lines 2 inches below the xiphoid appendix. Bowels moved twice

[illegible] weight. Appetite and pain capricious. Belches up sour [illegible] ordinary diet. Soda bicarb., oxalate cerium.

[illegible] Abdominal pulsation about epigastrium not expansive; no [illegible] well marked on putting patient in knee-chest position. Dullness [illegible] over pulsatory area. Systolic accentuation of heart appeared at [illegible] transmitted. Lungs normal. Pepsin prescribed. Veins of abdominal [illegible] dilated; pulsation very marked on palpation over aorta, midway [illegible] ensiform cartilage and the umbilicus; no pain on pressure.

[illegible] Had slight cough.

[illegible] Weight the same.

[illegible] Small nodule felt on palpation, over spot where pulsations are [illegible]

"W. G. S."

[illegible] was admitted to Fort Stanton. Chest at rest, [illegible] inches; inhalation, [illegible] skin dry. Palpation: Increased [illegible] upper part of right lung. Percussion: No dullness over abdo[illegible] apparently normal. Auscultation: Mucous rales in both [illegible] also marked in posterior parts of both lungs, near the [illegible] well marked in lower portions of right lung. Rough[illegible] upper parts of both lungs. Heart: Normal as to size and [illegible]

[illegible] examination reveals a scirrhous pulsating tumor about [illegible] situated in the left hypochondriac and epigastric regions. Its [illegible] appears to be behind the transverse [illegible] and its lower portion [illegible]

[illegible] was admitted to Fort Stanton he described his symptoms in [illegible] the diagnosis. He said the tumor would dis[illegible] and later on we found this to be correct; for at times the [illegible] would be located at other times it would be found in different por[illegible] In looking back at the case now it seems absurd [illegible] was not made, and yet the operator absolutely failed. [illegible] breakfast, but in introducing the tube and draw off the contents [illegible] caused him such fearful distress that we had to desist. The [illegible] left the man practically ruined. We had no opera[illegible] to perform an operation under [illegible] Assuming as a [illegible] the operation [illegible] was made, and [illegible] the stomach it was not. [illegible] We thought the tumor to be one of other [illegible] that the tumor was possibly a mass of glands which at [illegible] would force it [illegible] probably the very [illegible] The explanation of this was correct so far as the [illegible] disappearance [illegible] Here we omitted any [illegible] to lead one to [illegible] of the stomach. There were only the symptoms of [illegible] and there was a regular symptom [illegible] growth was cancer. A diagnosis of cancer of the [illegible] two weeks before the man died. He was informed [illegible] was [illegible] It was found that the cancer [illegible] the [illegible] started [illegible] which [illegible] could [illegible] closed [illegible] patient [illegible] There was [illegible] was [illegible] the [illegible]

[illegible] Were the [illegible] great interest [illegible] the [illegible] that this patient had an [illegible] than [illegible] the

1,650 grams; congested at base, with 120 c. c. of clear thin serous fluid. On section the brain appears normal with the exception that the ventricles contain an abnormal amount of fluid (30 c. c.) and the color of the cerebellum is darker than usual. Spinal cord slightly congested and surrounded by abnormal amount of fluid in the subarachnoid space. Several adhesions exist between the piamater and duramater at the vertex of the cerebrum.

G. J. S.
J. M. G.

Tuberculosis, acute miliary.

P. McG.; age, 32; nativity, New York; admitted to United States Marine Hospital, Stapleton, Staten Island, November 26, 1900; died November 28, 1900.

Family history.—Father living and in good health; mother died in childbirth. Four sisters died of cholera. One brother was paralyzed, one died of pneumonia.

Past history.—Indefinite. Patient in a very weak condition and was not questioned closely as to condition of health previous to present illness. Drinks considerable. Said he was always well until the beginning of this month.

Present history.—Dates his present condition from November 8 of this year, when he was drinking to excess. Remained on a spree for several days. Appetite was poor; nauseated, especially in morning. Nervous, couldn't sleep; complained of pain in abdomen and diarrhea. Condition rapidly became worse and he entered hospital. On admission complained of nausea, anorexia, diarrhea, pains in abdomen, and weakness.

Examination.—Inspection: General appearance poor; emaciated; anæmic; sordes on teeth and lips; tongue coated heavily, dry and cracked. Clavicles prominent; expansion poor, abdomen flat. Palpation: Fremitus increased over apices of both lungs, especially right. Tenderness over large intestines, especially over descending colon. Gurgling in right iliac region. Liver felt below ribs. Percussion: Dullness over apices. Auscultation: Blowing breathing over both apices; subcrepitant and fine mucous râles over rest of lungs. Temperature slightly elevated; pulse 88; respiration 30. Has cough, with muco-purulent expectoration.

Treatment.—Milk diet, salol, lead, and opium pills.

November 27, 1900.—General condition worse; passed a poor night; bowels moved fifteen or twenty times; movements fluid in consistency, yellowish color, and large in amount. Temperature in morning 37.4; respiration 30; pulse 80. Slight cough, with muco-purulent expectoration in small quantity; pain in abdomen; weakness profound. Diarrhea continued unchecked; general condition about the same.

November 28.—Passed a poor night; soiled bed several times; diarrhea persists; movements liquid, light brown in color, and amount about 1 quart with each evacuation; has hectic flush; tongue coated; very little appetite. Temperature, 38.6; pulse rapid; respirations shallow; abdomen markedly tympanitic; pain along colon severe; tenderness over intestines; coughs but little, and not much expectoration. He says milk causes cramp-like pains in the stomach; stimulation prescribed. Found unconscious by nurse shortly after morning sick call, and he died at 11.20 a. m.

Necropsy (twenty-four hours after death).—Body of a male, apparently 40 years old; small stature, muscles poorly developed; amount of subcutaneous fat small; rigor mortis marked; suggillations in dependent parts of body. Anterior mediastinum normal. Remains of thymus gland not found. Pericardium in normal position; amount of fluid in pericardial sac about 50 c.c.; pericardial walls normal. Heart in normal position, weight 233 grams; left ventricle in systole, right in diastole and containing a considerable quantity of fluid blood. Myocardium of normal thickness, color, and consistency; not friable. Mitral orifice of normal size, competent to water test; valves normal; first 2 inches of aorta show beginning calcareous changes; coronary arteries patent; bicuspid orifice and valves normal; right auricle contains chicken-fat clot. Left pleura shows a few adhesions to base and apex of lung; otherwise normal. Left lung weighs 915 grams; lower lobe crepitates; upper feels hard and nodular; upper lobe floats; apex shows two small cavities filled with tubercular débris; rest of lobe shows numerous nodular, tubercular foci, and some serum exudes; lower lobe on cut section has bright-red appearance and is very rough, showing innumerable miliary tubercles. Right lung weighs 735 grams, floats and crepitates; external surface feels shotty; apex shows, on cut section, tubercle in advanced caseation; all lobes show diffuse miliary tubercles, and serum exudes from cut surfaces. Bronchial glands much enlarged and show advanced tubercular degeneration, with consid-

[illegible] deposits. Omentum adherent to peritoneum and intestines and [illegible] congested. Spleen slightly enlarged, weighs 225 grams; cut section [illegible] congestion; pulp friable. Right kidney weighs 248 grams; large. Markings fairly distinct, much congested; cortex shows yellowish areas; [illegible] firm, and feels fibrous. Left kidney weighs 257 grams; capsule [illegible], gross findings as in the right. Bladder contained about 300 c. c. of [illegible] mucous membrane normal. Peritoneum. Many adhesions between [illegible] viscera; peritoneum everywhere dotted with miliary tubercles. Duodenal. Orifice of gall ducts patent. Stomach normal. Jejunum and [illegible] externally congested; covered with miliary tubercles and adherent to surrounding tissues. Internally, jejunum shows two or three ulcers, with elevated [illegible] depressed centers, and of about 0.4 mm. diameter. Ileum contains [illegible] more numerous especially near the ileocecal valve, where they [illegible] early the whole lumen. Ulcers vary from 0.2 to 12.8 mm. in diameter; [illegible] of these runs, as a rule, transversely with the gut; they are non-[illegible]. Colon presents a few similar ulcers, external surface covered [illegible] miliary tubercles. Liver enlarged, weighs 2,450 grams, external surface [illegible] with miliary tubercles; cuts hard; cut section has very yellowish color, [illegible] advanced fatty degeneration. Pancreas normal.

J. M. K.
G. W. S.

Tuberculosis of lungs.

[illegible] W. Nativity Norway; admitted to the United States Marine Hospital, [illegible] Md., November 23, 1899; transferred from the United States Marine [illegible] Norfolk, Va.; died November 28, 1899, at [illegible] m.

Family.—Father and mother dead, cause of death unknown; two brothers [illegible] sisters, all living and well.

Personal.—Had all the diseases that are usually incident to childhood. [illegible] to one year ago general health good; gives no history of venereal [illegible].

History.—About one year ago patient developed a cough, rather mild [illegible] in character, attended by slight expectoration which was occasionally [illegible] with blood. Cough gradually increased in severity, being more pronounced in the mornings, and associated with frequent chilly sensations and sweats. As the cough increased there was a gradual decline in body and strength. About two months ago cough became greatly exaggerated, expectoration very profuse. When admitted to the hospital November [illegible], physical examination elicited all the characteristic signs and symptoms of tuberculosis of the lungs, and the diagnosis of this condition was verified by a microscopic examination of the sputum, which revealed [illegible] of tubercle bacilli. Patient died November 28, 1899, at 11.15 [illegible] m.

Post-mortem examination.—External appearance: Medium size; [illegible] feet 7 inches; general nutrition [illegible]; post-mortem rigidity in all [illegible]; rigor mortis well marked; pupils dilated and equal. Circulatory [illegible] contained 1500 c. c. of straw-colored fluid; the endothelial [illegible] was covered by a serofibrinous exudate which had undergone partial [illegible]; the mucous medium was also covered by an exudate of a similar nature; [illegible] dense fibrous bands were observed to pass between the pericardium [illegible] medium, being especially prominent at the base [illegible] and limited the free movement of that organ. The sac was [illegible] and on the left side was adherent to the lung. Heart: Weighed 420 [illegible], dilated, covered by a serofibrinous exudate as above [illegible]. On section the valves were found competent and the [illegible] were to their slight vegetative deposit [illegible] slightly [illegible] small antemortem clot. Right [illegible] filled with a [illegible]. Aorta thoracic and abdominal normal. Respiratory [illegible]. Internal larynx was observed to be [illegible] the mucous membrane [illegible] was located near the attachment [illegible]. The trachea and bronchial tubes presented [illegible] the larynx. Lungs: Left weighed [illegible] wall and to the diaphragm, and the [illegible] were the adhesions it was necessary [illegible] [illegible] On section several small cavities were observed [illegible] adhere and situated near the [illegible]

"*February 20.*—After repeated examinations tubercle bacilli found. Temperature had ranged from 37 to 38.5.

"*March 2.*—Discharged improved. Readmitted for tubercle.

"*March 3.*—Examination shows on inspection: Expansion of chest fairly good, right better. Palpation—vocal fremitus normal. Percussion—slight dullness of left lung posteriorly at base. Auscultation: Respiratory sound exaggerated over right chest, suppressed over left lung posteriorly at base; vocal resonance diminished over left lung at base posteriorly.

"*March 4.*—Some swelling of right epididymis.

"*March 10.*—Swelling of epididymis and testicle continues; now decided enlargement; quite painful.

"*March 15.*—Swelling somewhat increased in size and more painful; pain is also prolonged along cord.

"*March 19.*—Pain and swelling less marked. Patient weighs 163 pounds.

"*March 23.*—Passed two or three yellowish bodies, the size of a pea, by urethra. Aspiration with hypodermic over fluctuating point gives a small amount of bloody effusion, but no tubercle bacilli found in it.

March 27.—Abscess pointing at upper end of testicle opened and about 10 c.c. of pus obtained.

"*March 28.*—Tubercle bacilli found in pus from testicle.

"*April 1.*—Testicle remains enlarged and pus is discharged from sinus in testicle.

"*April 9.*—Testicle removed (chloroform anæsthesia). Pus and caseous material found in epididymis; testicular substance riddled with tubercles. Gauze drain inserted.

"*April 20.*—There has been some discharge of pus, but the wound is now granulating nicely.

"*April 30.*—Is still troubled with deficient hearing and discharge from left ear.

"*May 7.*—Patient is well nourished; coughs but little; temperature has been normal for several weeks.

"J. M. G."

Condition when admitted to the sanitarium was as follows:

June 26.—Physical examination: Inspection shows full chest, typical nails and gums, movements of chest even, skin in good condition. Palpation—vocal fremitus nearly absent in bases of both lungs to above level of nipples. Percussion—no positive dullness can be demonstrated in left apex, as clinical sheet from San Francisco mentions; marked dullness in bases of both lungs to about level of nipples. Auscultation—vesicular murmur very faint in lower half of each lung, anterior; posteriorly, bronchial breathing at base of right and cogwheel respiration at base of left; roughened breathing in the other portion of both lungs; heart apparently normal in all respects.

From the very start this patient complained of severe and persistent headaches (frontal), which later on became general. He was always dull and stupid and inclined to be filthy in his habits, and he probably swallowed the sputum from time to time. On July 21 examination was made of left ear, and it was found that the eardrum had been previously destroyed. The headache at this time was very severe, and careful watch was kept over the mastoids, thinking that the headaches might be caused from mastoid disease. On July 24, after several chills, with high temperature, he was found to have a large tubercular pneumonia at the base of the left lung. This condition seemed to grow worse. On August 22 tubercular pneumonia developed in base of right lung. At this time the man became very sick; was delirious and hard to control; did not respond to stimulation. The fever gradually subsided and the temperature ran subnormal to the day of his death. Died from exhaustion.

Necropsy (eighteen hours after death).—Rigor mortis marked; body well nourished; no scars except in scrotum, showing where testicle had been removed at previous operation. The calvarium was removed, and the dura was found adherent in several places, especially along the longitudinal sinus. Near the sinus were abscesses which were cut into, but unfortunately none of the pus was secured for microscopical examination. Near the longitudinal sinus the dura was also adherent to the arachnoid, and the arachnoid and pia were firmly bound down to the brain throughout. The arachnoid was enormously distended with a clear white serum which contained a few flocculi. The blood vessels of the brain were distended to such an extent that it must have caused a certain amount of compression. It was noticed that the spinal canal was also greatly distended with this clear fluid. On turning the brain out and severing the spinal cord some of the fluid was collected on slides for microscopical examination. In section of the

bed, and there he remained till he died from sheer exhaustion on the 16th of November at 8 p. m.

Necropsy (twelve and a half hours after death).—Shows the body of a poorly developed, poorly nourished, adult, white male, about 1.6 meters high and weighing 47 kilograms. Rigor mortis has entirely disappeared in the upper limbs and is very slight in the nether limbs. Hypostasis is very slight. A few scars, circular or oval in shape, are present over each knee. No œdema is present. The subcutaneous fat is almost entirely absent, the small amount present being very dark in color. The superficial lymphatic glands are not enlarged, with the exception of the two highest anterior cervicals. The abdominal cavity contains about 1,000 c. c. of clear serous fluid. The omentum is almost devoid of fat, but is otherwise normal. The anterior mediastinum is normal, except that it contains a few tubercular glands. The pericardial cavity contains about 50 c. c. of clear serous fluid, but is otherwise normal. The right pleural cavity is entirely obliterated by stringy adhesions. These are especially dense and firm over the right apex. The left pleural cavity is almost in the same condition, except that the apex of the lung is almost entirely free of adhesions. The right lung can not be removed because of the dense, firm adhesions which bind it to the thoracic wall. Its surface is nodular with tubercles. The apex is entirely consolidated, and on section is found to contain a large sinuous cavity, which is filled with a greenish creamy pus. The left lung weighs 760 grams. Its apex is almost entirely consolidated, as is also its base anteriorly. Posteriorly it is crepitant and emphysematous. The bronchial glands are enlarged. The cut surface is studded with tubercles, some showing peripheric masses of pigmented scar tissue. The tendency to breaking down is more marked at the center of the lung than at the base. The heart weighs 190 grams. It is small and pale and shows on the anterior surface of its pericardium an irregular white milk spot 5 cm. in diameter. Its apex is made up entirely of the left ventricle. The aorta is small and elastic and shows a few thickened spots on its intima. The left ventricle contains one lardaceous clot. Its muscle is pale and flabby. The aortic valves are normal, as are also the mitral, except that they show a few patches of sclerotic thickening. The right ventricle is thin and flabby and contains also one lardaceous clot. The pulmonic and tricuspid valves are normal. The right auricle is slightly dilated. The liver weighs 1,250 grams It is small in size. Its outer surface presents nothing abnormal. Its cut surface shows the center of the liver lobules to be somewhat depressed and purple in color. The pancreas is normal. The spleen weighs 150 grams. Its outer surface presents no abnormality except a few white thickened spots on the capsule. Its dimensions are 13.2 cm. long by 8.2 cm. wide by 3.8 cm. thick. Its consistency is normal. Its cut surface is dark reddish-gray in color. The trabeculæ and Malpighian bodies are quite distinct. The right kidney weighs 175 grams. It is quite small. Perinephritic fat is almost entirely wanting. The capsule is very adherent over its anterior portion. The outer surface is pale and fairly smooth. A small stellate depression, red at the bottom, is seen on its convex border. The cortex is thin and fairly translucent. The pelvis of the kidney is normal, except that it is devoid of fat. The consistency of the kidney is firm. The left kidney weighs 173 grams. Its capsule strips with some difficulty. Its outer surface is very finely granular; otherwise it is similar in all respects to its fellow. The stomach is small. Its mucous membrane is pale. There are some adhesions between this organ and the transverse colon. The intestines are moist and almost collapsed. Their mucosa is dotted with shallow oval ulcers, whose long diameter runs parallel to the transverse diameter of the bowel. The mesenteric glands are enlarged and caseated. The dura and pia maters are normal. The subpial fluid, however, is very excessive in amount and elevates the pia mater considerably from the surface of the brain. The fluid is clear and serous. The brain weighs 1,400 grams. Its cut surface is slightly œdematous, but otherwise shows no abnormality. The cause of death is exhaustion incident upon tubercle of the lung and the bowel.

M. E. I.
J. M. G.

Microscopic report.—Lung: The specimen is almost entirely consolidated and consists of illy defined necrotic areas, with peripheric masses of lymphocytes and epithelioid cells. Giant cells are present, but not in very large numbers. The surrounding lung is hyperæmic. Liver: Upon examination with the low power objective, the center of each lobule presents a brown appearance. More minute examination shows this to be due to the fact that the cells in the center of the lobules are filled with fine, brown granular pigment; otherwise the liver is nor-

Pancreas is normal. Kidney: At regular intervals beneath the capsule are rectangular areas in [illegible]ch the interstitial connective tissue is hypertrophic [illegible] tubules atrophic. [illegible]tween these areas the tubules are large and apparently dilated but otherwise normal. The remaining parenchyma presents no [illegible]ality. Here and there one may see a dilated tubule or a small cyst containing coagulated fluid, and here and there a tubule containing a hyaline cast. Malpighian bodies are small and shrunken from their capsule. Spleen: Capsule slightly thick and dense, otherwise normal. Trabeculæ in like condition. Malpighian bodies are irregular in outline and closely packed. The Malpighian [illegible] show a thickening of the intima. Pulp is hyperæmic. The cells are [illegible] lymphocytes and spleen cells. Fibroblasts, plasma cells and polymorphonuclears are comparatively few. In the pulp there may be seen a few small [illegible]r areas surrounded by a zone of lymphocytes and epithelioid cells. No [illegible]lls are visible.

M. E. L.
J. M. G.

Tubercle of lung; pneumothorax.

[illegible] age, 31, nativity, Russia, admitted to Providence Hospital, Seattle, [illegible] September 18, 1900, died November 7, 1900.

[illegible]ry. Patient stated that three weeks previously he had fallen down a [illegible]y at which time he experienced a severe pain in left side over lower part [illegible]. This pain was still present when application was made for treatment. [illegible]d the dyspnœa on exertion were the only things of which he complained. [illegible] questioning him he admitted that for three months previous to his fall he [illegible]n troubled much with a cough.

[illegible]amination showed the patient to be somewhat emaciated and quite weak. [illegible] immobility of the left side of chest, with obliteration of the intercostal [illegible] the breath sounds over this side were almost inaudible; tactile fremitus [illegible]sent. Apex beat of heart was displaced to the right of sternum; percussion [illegible]rited a tympanitic resonance over entire left side of chest; the conditions [illegible]ry characteristic. There were no evidences of the presence of fluid when [illegible]d to the hospital, but this gradually accumulated when succussion pro[illegible] a sound very like that heard when a closed cask containing but a small [illegible]y of fluid is shaken. Examination of right lung showed tubercular [illegible]ment of the apex. Temperature on admission was 99.2°; pulse [illegible] and [illegible] 18 and at no time during the course of the disease was the rapidity of [illegible] much increased. There was also an almost complete anæsthesia [illegible] lower part of left side of the chest. An [illegible] discharge [illegible] after his admission to the hospital, which greatly weakened the patient. [illegible]ment was symptomatic and stimulation and aspiration were twice performed, [illegible] of frothy serous pleural fluid being withdrawn without benefit to the [illegible]ed with no change in the temperature and in the percussion sound. [illegible]ment grew gradually weaker and died November 7, 1900.

[illegible] *eight hours after death.* Body that of a white male about [illegible] years and very poorly nourished; post mortem rigidity [illegible]. Upon opening the chest a large quantity of fluid was aspirated [illegible] cavity. Left lung was compressed into a small [illegible] against the [illegible] portion of chest wall and was adherent to same. A large [illegible] in the upper lobe which communicated with the pleural [illegible] considerable quantity of seropurulent fluid [illegible] cavity. The left side of diaphragm was pushed downward [illegible] and fluid. The right lung was the seat of [illegible] was disseminated throughout with tubercles [illegible] to the right of middle line but was [illegible] normal. The small [illegible] were present. The mesenteric glands [illegible]. The other organs were apparently [illegible]

[illegible]

Tuber[illegible]

[illegible] age 67 years, nativity [illegible] Hospital, Boston, Mass. [illegible] The patient gave [illegible] weight; there were evidences [illegible] being more advanced in the [illegible] An examination of sputum showed [illegible]

ance; toward the close there was diarrhea of a very severe character. The disease followed the usual course, and the patient died from absorption of toxic products and exhaustion.

Necropsy (eighteen hours after death).—Greatly emaciated; rigor mortis marked; elbow, knee, hip, and vetebral joints ankylosed from rheumatism. Weight of heart, 275 grams; valves, cavities and walls apparently normal. Left lung bound down around apex and posteriorly by adhesions; anterior surface of right lung very closely bound to thoracic wall by dense adhesions; weight of lungs, left, 655 grams; of right, 1,075 grams. In apex of right lung there was a cavity of about 125 c. c. capacity; upper, middle, and lower lobes infiltrated by tubercle; in left lung only a small portion of diaphragmatic surface was free from tubercle; remainder contained cheesy masses. Liver normal; weight, 1,675 grams. Spleen normal; weight, 270 grams. Right kidney normal; weight, 160 grams; left kidney normal; weight, 180 grams. Stomach normal. Pancreas normal. Small and large intestines normal and empty; mesenteric glands indurated and enlarged. Brain was normal; weight, 1,150 grams.

F. I.

Miliary tuberculosis.

J. N.; age, 38 years; nativity, Ireland; admitted to the marine ward of St. Marys Hospital, Milwaukee, Wis., October 30; died November 9, 1900.

History.—Patient has had syphilis and one or two attacks of inflammatory rheumatism, the last occurring in the beginning of the present year. About three years ago he suffered from a severe attack of pleurisy of the right side. Present illness began two weeks before admission, and was marked by severe pain in both temporal regions with rigors, sweating, and prostration. Auscultation over the chest disclosed a blowing systolic murmur heard most distinctly over the apex and in the axilla. The pulse during his illness ranged from 50 to 56 per minute. The temperature, which was at first normal in the morning, became continuous on the third day and ranged from 38° to 39° C. There were at this time short periods of mental dullness or hebetude, which later became delirium with constant muscular movements. Under the influence of bromides and phenacetin the cephalalgia ceased to bother after the second day, but the patient gradually sank into a state of coma, from which he never rallied. Meningitis of some form was easily diagnosed after the second day, but of what nature, as regards the causative factor, was not fully determined.

Necropsy (eight hours after death).—Body of a muscular man fairly well-nourished. Rigor mortis not marked. Brain: Appearances everywhere seemed normal save on the inner aspect of the dural membrane in both temporal regions. Here were to be seen patches of minute elevations somewhat smaller than a millet seed, white in color, and disposed evenly over the surface. Degenerative changes, as shown by yellow discolorations, could not be detected by the unaided eye. A considerable quantity of serum was found on the base of the brain, some of it being in the lateral ventricles. Brain weighed 1,480 grams. Thorax: Heart pale and anæmic, size of the fist; an old fibrous patch showed over the right ventricle; valves are competent. Organ weighed 200 grams. The left lung was adherent to the thoracic wall at the apex by old adhesions. There is a soft caseous tubercle in the apex and a hard, gritty, calcareous one on the anterior surface of the middle lobe. This lung weighed 430 grams. On the right side the lung is bound in its containing cavity throughout most of its extent by adhesions. So firm and dense are these that pieces of the lung substance are pulled away with them. There are six or more caseous tubercles in as many situations; one or two are becoming cavernous; hypostatic congestion at the base; weight, 450 grams. Abdominal viscera normal.

R. B.

Tubercle—Broncho-pneumonia—Pleurisy, chronic.

O. M.; age, 27 years; nativity, Sweden; was admitted to the United States Marine Hospital, port of San Francisco, Cal., November 17, and died November 21, 1900, at 9.35 a. m.

History.—Patient complained of pain in left side of the chest, accompanied with cough and copious expectoration. Had been in ill-health for over two years, and had lost 10 kilograms during the last two months. He had been too weak to perform his regular work for some time past. His appetite had been very poor for a long time; bowels regular. Physical examination—lungs: Dullness over both apices, on percussion; on palpation, vocal fremitus was greater over the right apex; auscultation, bronchial breathing and moist râles over the right apex;

breathing and no rales over the left apex and lung. On day following the patient complained particularly of the pain in his left chest, which

Upon examination dullness was elicited by percussion and vocal was absent, on palpation, showing presence of fluid in the left pleural The same day his sputum was examined and tubercle bacilli were found numbers. The patient was transferred to the tuberculosis ward, where delirious. He became dyspnoic and expired at 9:55 a. m.

ent consisted of a palliative cough mixture, strapping of chest walls, hermes of strychnine with nourishing diet

Three and one half hours after death. Body that of a fairly well-adult male, almost 1.7 meters in height and weighing about 77.5 kilo a slightly brown eruption upon the skin of the thorax. Hypostasis fairly ted. Rigor mortis absent. On section the subcutaneous fat is scanty, yellow in color. The left pleural cavity contains about liters of fluid numerous adhesions are present between the thoracic and visceral The left lung weighs 700 grams, smaller in size than normal, being with the above mentioned fluid and held by very firm adhesions at its bronchial glands at the root of the lung are enlarged and pigmented, in size from a grain of wheat to that of a small cherry; they are hard surface cut, was a mottling of gray and black. The cut surface of the left hematoma at the base, slightly repetant of a grayish color studded with pigmented tubercles, varying in size from that of a pinhead to that

Both the upper and lower lobes are affected alike with the exception apex has two cavities varying in size from that of a bean to that of a each cavity is surrounded by a cicatrical tissue, content more purulent cut surface of the small bronchi are surrounded by evidences bronchopneumonia. The fibrous nature of the connective tissue between surrounding the bronchioles is very extensive, it is also studded with small

Patches on the surface of the lung varying in size from a pinhead to dollar are covered with milky [illegible]. The right lung has [illegible] adhesions binding its visceral pleura and [illegible] wall. The grains the outer surface presents [illegible] granulation patches of pigmentation. On section the bronchial glands at the root ing are enlarged, hard, and pigmented. The cut surface is studded with nodules from apex to base. The three lobes are [illegible] together where presenting the character [illegible]. Pus [illegible] dollar size [illegible] fluid. The heart weighs [illegible] grams. Pericardial sac [illegible] amount of fat around its base [illegible] post mortem clot of blood [illegible] apparently the walls are [illegible] and thinner [illegible] and the substance is pale and flabby. The [illegible] are pale and flabby, normal. Large [illegible] are normal. Aorta [illegible] no fluid. Other [illegible] are [illegible] and studded with [illegible] fat are two small purple spots. The [illegible] of the yellow with green [illegible]. On [illegible] that [illegible] surface of the middle [illegible]. In the right [illegible] about the size of a pea. Spleen weighs [illegible] grams. [illegible] outer surface [illegible] tissue adjacent. On [illegible] spots that [illegible] cells. The spleen [illegible] and the [illegible] normal. On [illegible] examination [illegible] inflammation. [illegible] two [illegible] and [illegible] pale and [illegible] with [illegible] normal tissue appearance. A [illegible] kidney. Kidneys [illegible] on section the [illegible] pale. Pelvis [illegible] surface. A small [illegible] on its superior surface [illegible] at several in the cortical portion [illegible] of the kidney. The remains granulated abscess [illegible] in diameter. all congested. Bladder [illegible] normal. Brain, [illegible]

1,650 grams; congested at base, with 120 c. c. of clear thin serous fluid. On section the brain appears normal with the exception that the ventricles contain an abnormal amount of fluid (30 c. c.) and the color of the cerebellum is darker than usual. Spinal cord slightly congested and surrounded by abnormal amount of fluid in the subarachnoid space. Several adhesions exist between the piamater and duramater at the vertex of the cerebrum.

G. J. S.
J. M. G.

Tuberculosis, acute miliary.

P. McG.; age, 32; nativity, New York; admitted to United States Marine Hospital, Stapleton, Staten Island, November 26, 1900; died November 28, 1900.

Family history.—Father living and in good health; mother died in childbirth. Four sisters died of cholera. One brother was paralyzed, one died of pneumonia.

Past history.—Indefinite. Patient in a very weak condition and was not questioned closely as to condition of health previous to present illness. Drinks considerable. Said he was always well until the beginning of this month.

Present history.—Dates his present condition from November 8 of this year, when he was drinking to excess. Remained on a spree for several days. Appetite was poor; nauseated, especially in morning. Nervous, couldn't sleep; complained of pain in abdomen and diarrhea. Condition rapidly became worse and he entered hospital. On admission complained of nausea, anorexia, diarrhea, pains in abdomen, and weakness.

Examination.—Inspection: General appearance poor; emaciated; anæmic; sordes on teeth and lips; tongue coated heavily, dry and cracked. Clavicles prominent; expansion poor, abdomen flat. Palpation: Fremitus increased over apices of both lungs, especially right. Tenderness over large intestines, especially over descending colon. Gurgling in right iliac region. Liver felt below ribs. Percussion: Dullness over apices. Auscultation: Blowing breathing over both apices; subcrepitant and fine mucous râles over rest of lungs. Temperature slightly elevated; pulse 88; respiration 30. Has cough, with muco-purulent expectoration.

Treatment.—Milk diet, salol, lead, and opium pills.

November 27, 1900.—General condition worse; passed a poor night; bowels moved fifteen or twenty times; movements fluid in consistency, yellowish color, and large in amount. Temperature in morning 37.4; respiration 30; pulse 80. Slight cough, with muco-purulent expectoration in small quantity; pain in abdomen; weakness profound. Diarrhea continued unchecked; general condition about the same.

November 28.—Passed a poor night; soiled bed several times; diarrhea persists; movements liquid, light brown in color, and amount about 1 quart with each evacuation; has hectic flush; tongue coated; very little appetite. Temperature, 38.6; pulse rapid; respirations shallow; abdomen markedly tympanitic; pain along colon severe; tenderness over intestines; coughs but little, and not much expectoration. He says milk causes cramp-like pains in the stomach; stimulation prescribed. Found unconscious by nurse shortly after morning sick call, and he died at 11.20 a. m.

Necropsy (twenty-four hours after death).—Body of a male, apparently 40 years old; small stature, muscles poorly developed; amount of subcutaneous fat small; rigor mortis marked; suggillations in dependent parts of body. Anterior mediastinum normal. Remains of thymus gland not found. Pericardium in normal position; amount of fluid in pericardial sac about 50 c.c.; pericardial walls normal. Heart in normal position, weight 233 grams; left ventricle in systole, right in diastole and containing a considerable quantity of fluid blood. Myocardium of normal thickness, color, and consistency; not friable. Mitral orifice of normal size, competent to water test; valves normal; first 2 inches of aorta show beginning calcareous changes; coronary arteries patent; bicuspid orifice and valves normal; right auricle contains chicken-fat clot. Left pleura shows a few adhesions to base and apex of lung; otherwise normal. Left lung weighs 915 grams; lower lobe crepitates; upper feels hard and nodular; upper lobe floats; apex shows two small cavities filled with tubercular débris; rest of lobe shows numerous nodular, tubercular foci, and some serum exudes; lower lobe on cut section has bright-red appearance and is very rough, showing innumerable miliary tubercles. Right lung weighs 735 grams, floats and crepitates; external surface feels shotty; apex shows, on cut section, tubercle in advanced caseation; all lobes show diffuse miliary tubercles, and serum exudes from cut surfaces. Bronchial glands much enlarged and show advanced tubercular degeneration, with consid-

[illegible] deposits. Omentum adherent to peritoneum and intestines and [illegible]. Spleen slightly enlarged, weighs 225 grams, cut section congestion, pulp friable. Right kidney weighs 248 grams, large, [illegible] fairly distinct, much congested; cortex shows yellowish areas, [illegible], firm, and feels fibrous. Left kidney weighs 257 grams, capsule [illegible], gross findings as in the right. Bladder contained about [illegible] of [illegible] membrane normal. Peritoneum: Many adhesions between [illegible], peritoneum everywhere dotted with miliary tubercles. Duo[illegible]al. Orifice of gall ducts patent. Stomach normal. Jejunum and [illegible]ally congested, covered with miliary tubercles and adherent to surrounding. Internally, jejunum shows two or three ulcers, with elevated [illegible] centers, and of about 6.4 mm. diameter. Ileum contains [illegible], more numerous especially near the ileocecal valve, where they [illegible] the whole lumen. Ulcers vary from 3.2 to 12.8 mm. in diameter; [illegible] of these runs, as a rule, transversely with the gut; they are [illegible]. Colon presents a few similar ulcers, external surface covered [illegible] tubercles. Liver enlarged, weighs 2[illegible] grams; external surface [illegible] miliary tubercles; cuts hard, cut section has very yellowish color, [illegible] fatty degeneration. Pancreas normal.

J. M. K.
G. W. S.

Tuberculosis [illegible]

[illegible], nativity Norway; admitted to the United States Marine Hospital, [illegible], November 23, 1[illegible]; transferred from the United States Marine [illegible] Norfolk, Va.; died November 28, [illegible].

History. Father and mother dead; cause of death unknown. Two brothers, all living and well.

History. Had all the diseases that are usual [illegible] childhood. [illegible] one year ago general health good; [illegible] venereal [illegible].

History.—About one year ago patient developed a cough, rather mild [illegible] in character, attended by slight expectoration, which was [illegible] with blood. Cough gradually increased in severity, being most pro[illegible] the mornings, and associated with frequent chills, sweats, etc., and [illegible]. As the cough increased there was a gradual decline in body strength. About two months ago [illegible] expectoration very profuse. When admitted [illegible] November [illegible] physical examination revealed all the characteristics [illegible] tuberculosis of the lungs, and the diagnosis [illegible] was ratified by a microscopic examination of the sputum, which revealed [illegible] of tubercle bacilli. Died November [illegible].

Autopsy. [illegible] External appearance. Measures [illegible] 17 inches; general [illegible]. The right [illegible] marginal [illegible] was covered by a [illegible] the mass and diaphragm was also covered by a [illegible] fibrous bands were [illegible] medium being especially prominent at the base [illegible] of the free movement of that organ. [illegible] on the left side was not [illegible]. Heart: Was [illegible] dilated, covered by a [illegible] were noted slight vegetative deposits [illegible] small atheromatous [illegible]. Aorta: [illegible]. Kidneys: [illegible] larynx was observed [illegible] of the [illegible] was located near the [illegible]. The trachea and [illegible] larynx. Lungs: [illegible] the [illegible] to the diaphragm and [illegible]. Section [illegible] the adhesions [illegible] the lungs [illegible]. On section several small cavities were observed, one of which larger [illegible] and situated [illegible], measured about [illegible] of an [illegible]

purulent fluid. Throughout the substance of the lung were numerous tubercles in various stages of retrogression, ranging all the way from caseation to necrosis and cavity formation. Right lung weighed 1,145 grams; slight adhesions at the apex and base, but none elsewhere; venous engorgement general; no cavities, but many caseous masses. Abdomen and contents: Peritoneum revealed no evidence of tubercular or other involvement. Stomach distended with gas and contained about 150 c. c. of watery fluid, mixed with mucoid substance. Small intestine normal; mesenteric glands enlarged. Large intestine normal; vermiform appendix very rudimentary. Liver: Weighed 1,550 grams; normal; gall bladder moderately distended. Pancreas normal, weighed 63 grams. Spleen weighed 245 grams; firm in texture and of a dark color; transverse diameter almost as great as that of the longitudinal. Urinary organs: Kidneys—left weighed 190 grams; was marked by two fissures, one at either extremity and running transversely. These fissures gave to the organ a nodular appearance; capsule not adherent. Right weighed 160 grams; capsule not adherent. Bladder normal, contained about 50 c. c. of urine. Brain and membranes: Calvarium removed; dura mater normal; pia mater and arachnoid were congested, adhered one to the other, and in a few locations the pia mater was firmly attached to the convolutions of the cerebrum. The brain as a whole was anæmic; the sulci shallow, and the cortical gray matter extremely thin.

G. P.
W. C. B.

A. P.; age, 25; nativity, Norway; admitted to marine hospital at Savannah, Ga., March 16, 1900.

Clinical history, taken from notes of medical officer in command at Wilmington, N. C., viz:

"Family history negative. Personal history negative. Present sickness began about March, 1898, with cold. Has had cough ever since. Has lost 45 pounds in weight, and has become quite weak and short of breath on exertion. Physical examination March 16, 1899, showed emaciation, diminished expansion of right chest, increased vocal fremitus and resonance nearly all over chest, subcrepitant râles in left mammary and axillary regions, and cog-wheel respiration in left subclavicular region. Sputum examination showed a large number of tubercle bacilli. Since above date patient has had some night sweats and temperature ranging from 36° to 38° C. Subsequently gained in weight and cough moderated. December 1, 1899, patient was transferred to the marine hospital at Wilmington, N. C., where another examination revealed most of the above physical signs."

Admitted to Marine Hospital Sanitarium, Fort Stanton, N. Mex., December 26, 1899, and physical examination on that date showed the following:

Height, 5 feet 8 inches; weight, 125 pounds; blue eyes, light hair, blonde complexion. Clavicles prominent. Breathing mostly on left side. Chest sunken in at apex on right side. The apex and greater portion of lower and middle lobes badly infected and undergoing pneumonic infiltration. Think there are no adhesions. Very little tissue broken down. On left side there is a small focus of infection at apex. Heart weak and rapid, though otherwise normal. Coughs considerable and expectorates a great deal. Claims he has lost 45 pounds. His condition is fairly favorable, as he has one good lung and the other lung not being badly broken down. Appetite poor. Examination of sputum December 28 showed large numbers of typical tubercle bacilli, small in size. Typical temperature chart.

Subsequent history.—For some time after arrival the patient gained in every way until a severe cold was contracted, after which he began to retrograde. The sputum was examined many times and always contained large numbers of tubercle bacilli. The urine was also frequently examined and a strong Ehrlich diazo reaction always obtained. The percentage of hæmoglobin ranged from 80 to 95 up to August 15, the last time it was taken. During the last month the patient was much troubled with dyspnoea, which continually increased. About two weeks ago dropsy began to occur in the lower extremities, and later invaded the trunk and face. Death occurred October 11 at 12.50.

Necropsy (twenty hours after death).—Inspection of body: Emaciation; post-mortem lividity and rigor mortis well marked. Calvarium removed: Meninges adherent to skull cap more than normal, and [illegible] thick p[illegible]riorly. Otherwise the cranial cavity and its contents w[illegible] [illegible]ndi[illegible] pleuræ of both lungs adherent to the peri[illegible] parietal layers of both lungs adherent. [illegible] The left apex had a cavity of 7 or 8

r as large both were empty. Surrounding the cavities were extensive areas mediastinum. Both lungs were full of tubercles from apices to bases, there hardly a cubic centimeter of wholly normal tissue anywhere. In the right were a few healed scars. Several enlarged bronchial glands were present in posterior mediastinum. The pericardium was somewhat distended and con- several ounces of serous fluid. It was adherent in places to the pleurae, visceral and parietal layers were partially adherent. The heart was con- bly enlarged. The right ventricle was larger and its walls thicker than the and contained a large mass of vegetations below the tricuspid valve, the lat- ring incompetent to the water test, as was also the pulmonary semilunar s. The left ventricle was normal, though the mitral valve was decidedly ipetent to the water test. The aortic semilunar valves were normal. Con- ing the obstructions existing in both lungs, the condition of the right ven- tricuspid and pulmonary valves is accounted for. The pulmonary artery dilated but otherwise the great blood vessels and nerves were normal. The ns glands was not demonstrable. Abdomen: Liver slightly enlarged and ated. The capsule of the right kidney was adherent, and the line indistinct en the cortex and medulla. The gall bladder contained bile. The urinary er contained a small amount of urine. The stomach contained fluid and ested food. The spleen, pancreas, suprarenals, left kidney, small intestines, intestines, vermiform appendix, omentum, mesenteries, gall ducts, great blood s, and generative system were all in normal condition. The solar plexus ot dissected out, owing to lack of time.

C. R.
J. C. C.

M age 34, nativity, Ireland; admitted to United States Marine Hospital, Santa Fe, N. Mex., June [illegible]; died December [illegible]

Present history [illegible] Family history negative. Personal history: Chills and several years ago chancre, bubo, and ulcer on right leg; had gonorrhœa 9. Six years ago had as much trouble. Present illness: [illegible] months' ion. At outset cough followed by free expectoration, [illegible] dyspnœa, f weight and pain in chest on coughing. Examination: Emaciation and ygiene; more muscular effort on right side; flatness at [illegible] clavicles and ow below, involving right upper lobe; dullness all over right lung posterior area of liver dullness increased; bronchial breathing in middle of right Large respiration over left chest, except apex, where murmur is almost; fremitus increased in all dull areas, except left apex and right base, where is decreased; bronchophony below right clavicle; heart sounds muffled and accentuated. May 1 examination showed right lung and left full and apices involved. Aeration good only over left lung, inferiorly anteriorly. Left lung sh was moist rales and blowing respiration. A few moist r g at lung which for the most part seems obstructed. Tube is [illegible] ngestion. Urinalysis negative. Repeated physical examinations show that ease is progressing. Patient wants to be sent to Fort Stanton, N. Mex.

J. J. T.

[illegible] admitted, as noted on arrival at Fort Stanton, was [illegible] and gums; right shoulder depressed; [illegible] diminished over left lobe; dullness in right upper [illegible] dullness in left apex and base; [illegible] a few in left apex; heart seemed normal; [illegible] a strong diazo reaction. This was [illegible] improvement seemed to take place in the [illegible] part as was expected he began to feel well [illegible]. Ascites and [illegible] developed. Though the urine was [illegible] albumin was observed except a very [illegible] M. [illegible] signing, we were expected it being a most [illegible] large [illegible] of having some cathartics. As [illegible] and, at last, Dr. [illegible] and men enormously distended [illegible] and let out the fluid with a wand [illegible] of serous fluid was removed at [illegible] ment [illegible] for the anæsthetic and [illegible] fell [illegible] he was taken very rapidly [illegible] at 2 a. m.

Necropsy (eight hours after death).—Inspection of body: Rigor mortis and post-mortem lividity; wound in abdomen from operation previous day; calvarium not removed. Thorax: Anterior mediastinum had several enlarged glands. Heart normal. Pericardium adherent to left lung. Right lung almost entirely consolidated. Left lung involved at apex, and with many small tubercles scattered throughout other portions; but the left lung still had considerable functional tissue remaining. Layers of right pleura adherent all over. The left pleura adherent to the pericardium partially. Arch of aorta was dilated. The other great vessels and nerve trunks normal. The diaphragm was adherent to the right lung. Abdomen: Omentum very thin, friable, and undergoing fatty degeneration. Spleen much enlarged and very anæmic. Kidneys small with capsules adherent in places, and line between cortex and medulla nearly obliterated. Suprarenal capsules could not be found. Urinary bladder empty. Organs of generation normal. Rectum in process of fatty and colloid degeneration. Duodenum normal. Stomach very anæmic, its mucous membrane almost white. Gall ducts and gall bladder normal. Liver small, anæmic, and granular, and infiltrated throughout with what appeared to be minute tubercles. Pancreas in a state of fatty degeneration. Mesentery thin, friable, and in process of fatty degeneration. Small and large intestines more or less glued together, owing to existence of a plastic peritonitis with exudation of lymph; large intestines undergoing fatty and colloid degeneration. Their walls were very thick and the muscular substance nearly gone, being replaced by large transparent masses of semisolid colloid material, each mass being surmounted by one or more fatty processes of conical shape. This remarkable condition of the large intestines, including the rectum, will account for the obstinate constipation experienced by the patient. The great vessels were normal. Between the stomach and spleen was a mass of distended veins.

Microscopical examination.—Stained sections of liver tissue demonstrated presence of fatty degeneration of the atrophic or wasted form of fatty liver.

C. R.
J. O. C.

Tuberculosis of spinal cord and syphilis secondary.

J. K.; age, 24 years; nativity, Louisiana; admitted to United States Marine Hospital, New Orleans, La., December 22, 1899, died August 26, 1900.

Family history.—The family history is vague; father died, the history states, of dysentery, though the relatives report that the cause of death was tuberculosis; mother died during childbirth; of a family of two brothers and five sisters only one brother is living; the other brother was killed by a railroad accident; the causes of death of the five sisters are not stated.

Personal history.—Ten years ago the patient had a fever, which was probably typhoid; seven years ago he had gonorrhœa, which was followed by buboes in both groins; shortly after the attack of gonorrhœa a sore developed on the penis, not followed by eruption. Patient states that the present condition began in December, 1899, as a girdle pain just below the umbilicus; this pain was scarcely noticeable at first, but gradually increased in severity; about three weeks later he began to have pains in the ankles; this pain spread upward, followed by paralysis; two weeks later, or, as the history states, five weeks after the inception of the attack, the patient became bedridden; anæsthesia of the skin of the legs began about this time and continued until it was complete; incontinence of feces, priapism, and bed sores are then noted on the history, the bed sores formed over the tuber ischii and sacrum; about the 1st of April of the present year the patient was turned on his face to relieve the pressure on the dependent sloughing parts; this brought the pressure on the knees, which first swelled and then broke down, eroding the joint and laying bare the femur several inches, the right knee being the worst; trophic gangrene also began on the toes and other dependent parts. During this time the legs assumed the type characteristic of spastic paraplegia. The patient gradually grew weaker, more emaciated, and died at 7.35 p. m., August 26, 1900.

Necropsy (eighteen hours after death).—Rigor mortis slight. Inspection showed body to be markedly emaciated; the legs are in the same condition as during life, i. e., crossed; there are large bedsores and cicatrices over the parts that served to support the body in its various positions. The most remarkable condition, however, presented itself in the structures around the right knee; the soft structures had sloughed away anteriorly and latterally, leaving the black, gangrenous end of the femur projecting several inches. All the cartilages had disappeared, but the interarticular ligaments were intact; the posterior soft structures were in good condition. The condition of the left knee was somewhat better

[illegible] right [illegible] condyle only protruded through the skin, but a rapidly spreading [illegible] was making good progress, and this knee would soon have presented [illegible] condition as the other. The abdominal walls were thin, in fact there [illegible] only a trace of superficial fascia, the wall was adherent to the omentum [illegible] the peritoneal covering of the liver. These adhesions were dissected away. Weight 2,300 grams. Position: Extends transversely across the abdomen [illegible] with the fifth costal cartilage, displacing the thoracic viscera upward [illegible] the stomach, and to a small extent the spleen. The line of lower boundary [illegible] transverse across the abdominal cavity about 5 cm. above the umbilicus [illegible] adherent to the abdominal wall, the diaphragm, the stomach, the spleen, [illegible] colon, and the intestines. The capsule is adherent, color is lighter [illegible] the entire liver structure is filled with amyloid bodies, practically [illegible] amyloid degeneration. As evidence that the organ had been almost [illegible] for some time the gall bladder was found quite empty and showed [illegible] staining from bile salts. Stomach apparently smaller in size than [illegible] and adherent to all surrounding structures. Spleen: Weight 400 grams, [illegible] consistency that on section the parenchyma oozed from capsule. This was also adherent to the surrounding structures. Left kidney: Weight 300 [illegible] capsule adherent, pale in color, shows evidence of both amyloid and fatty [illegible]. Right kidney: Weight 280 grams, capsule adherent, pale in color, and the same degenerative changes as its fellow, but not so marked. Appendix: [illegible] by adhesions to the peritoneum of the abdominal wall and caecum. Mesentery: Normal in attachments, congested in appearance, studded with miliary [illegible] and covered with organized lymph. Peritoneum: Studded with tubercles, [illegible] with organized lymph, and all opposing surfaces adherent. This was especially marked with the mesentery, which was adherent to the liver, stomach, intestines, and anterior abdominal wall. Heart: This organ was displaced upward and [illegible] the liver, causing it to lie in a transverse position, weight 380 grams; [illegible] fat and currant jelly clots, the ventricles were slightly hypertrophied, the valves were intact. Lungs: Left, weight 700 grams, and area of [illegible] apex and a few attached tubercles. Right more congested at the [illegible] containing more tubercles. The posterior mediastinum: After [illegible] viscera an abscess was found to be seen extending downward [illegible] vertebra behind the diaphragm, to the psoas muscle, the [illegible] forming the sac in this location. This sac was opened through [illegible] spinal column formed the posterior boundary; the vertebrae were [illegible] the vertebral canal being opened in several locations, showing [illegible] destruction of the spinal cord. The pus was of the character [illegible] Post mortem diagnosis: [illegible] Complications, spinal paralysis with its accompanying [illegible]

H. B. P.
C. P. W.

Tuberculosis of lung.

[illegible] colored, age 40; nativity Louisiana; admitted to the United States [illegible] Hospital, New Orleans, La., November 19, 1900; died November 20, 1900; [illegible] Patient states that he was taken sick with bronchitis about [illegible] the present month; applied to the out patient office on November 6; [illegible] was given nothing; improvement. Several days ago began spitting blood; [illegible] spit up a considerable quantity of blood. On November 19 was [illegible] to the hospital. At 2 o'clock in the following morning began coughing [illegible] blood. He fell while in water-closet; heard him fall. The nurse on [illegible] found the patient lying on the floor unconscious with blood streaming from [illegible] and mouth. The assistant surgeon was then called; on arrival he found [illegible]

[illegible] *twenty hours after death.* The body is well nourished and well [illegible] rigor mortis present and marked. The body was opened and the cavities [illegible] the organs dealt with seriatim. Brain: Normal in size; cortical [illegible] congested; no other pathological lesion noted. Heart: Weight [illegible] grams; [illegible] distended and empty; mitral, aortic, and tricuspid valves normal; [illegible] contains about 20 [illegible] of fluid; normal in appearance. Left lung: [illegible] grams; crepitant throughout; no adhesions; contains a small amount of [illegible] to incrustation; apex apparently free from tubercles. Right lung: [illegible] grams; adherent at apex and in small patches at irregular intervals [illegible] costal pleura; no adhesions noted; apex crepitant; [illegible]. A well marked tubercular process of recent origin involves the apex, producing with the large number

of tubercles and their inflammatory zone, almost complete consolidation. Two small cavities are seen, one predisposing to the immediate cause of death. It is situated in the narrow strip of lung tissue between that branch of the pulmonary artery and bronchus that supplies the apex of the lung. Communication was apparently first made with the bronchus, and then the ulcerative process attacked the artery, establishing a free communication and causing death through hemorrhage. Pleura: Normal on the left side; adherent to the lung on the right side, as previously stated. Aorta and vena cava are both normal. Spleen: Smaller in size than normal; weight, 185 grams; structure apparently normal. Left kidney: Weight, 170 grams; apparently normal. Right kidney: Weight, 150 grams; apparently normal. Liver: Weight, 1,690 grams; slightly enlarged, but no pathological lesions are noticed. Gall bladder contains about 15 cc. bile. Stomach and intestines apparently normal. Appendix about 12 cm. long; free from meso-appendix except about 3 cm. at base. Urinary bladder empty.

From personal observation I would estimate that this man lost about 2 quarts of blood before death, death being caused either by the direct loss of blood or by suffocation. Post-mortem diagnosis: Tubercle of lung. Complications: Rupture of the pulmonary artery into the superior bronchus of the right side.

H. B. P.
C. P. W.

J. S.; age, 30; nativity, Kentucky; admitted to the United States Marine Hospital, Evansville, Ind., July 14, 1900, and died November 8, 1900.

History.—On admission he complained of having been sick about ten days with fever, pain in left side, and a cough. His respirations were short and rapid. Examination showed extensive consolidation of left lung. Case was diagnosed as lobar pneumonia. He did not improve. Fever remained high. Case was readmitted on August 7, 1900, as tubercle. He failed rapidly, and died at 3.45 a. m., November 8, 1900.

Necropsy (twelve and one-half hours after death).—Rigor mortis was marked. Pupils dilated. General nourishment of body very poor. Heart: Weight after opening, 340 grams. Wall of right ventricle was thinner than usual, otherwise the heart was normal. Pericardial sac contained about 25 c. c. clear fluid. Left lung: Weight, 1,847 grams; was one mass of tubercles, with two large cavities full of thick pus. One cavity was in apex of lung and the other one was in lower lobe. Pleural cavity on that side was obliterated. Right lung: Weight, 935 grams. The apex and upper parts lower lobe were involved. Pleural cavity normal. Liver: Weight, 2,345 grams; congested. Otherwise normal. Pancreas: Weight, 155 grams; normal. Spleen: Weight, 102 grams; normal. Left kidney: Weight, 232 grams; normal. Right kidney: Weight, 238 grams; normal. All other organs and tissues normal.

J. H. O.

L. J.; age, 56 years; nativity, Canada; admitted to United States Marine Hospital, Cleveland, Ohio, June 21, 1900; died September 28, 1900.

Clinical history.—Patient began to cough about four weeks previous to being admitted to hospital; has had severe night sweats, profuse purulent expectoration, diarrhea, and has had some pain in upper part of right side of chest: he has lost about 27 pounds within the last two months. Appetite is poor and patient is emaciated; has dyspnœa on exertion. Supraclavicular spaces are deep; clavicles, prominent. Expansion of left side of thorax is retarded. Respirations are hurried and superficial. Breathing at both apices is roughened. Left infraclavicular space is dull. There is prolonged expiration over both apices. Over both lungs, anteriorly and posteriorly, loud, moist râles are heard. Area of heart dullness is increased; heart sounds are loud, and pulse is quick and rather weak. Tubercle bacilli found in large numbers in sputum; also staphylococci. Sputum is profuse and purulent and of a nummular character.

Necropsy (five hours after death).—Body of an Indian, of medium build; rather emaciated. Enlargement of bones of left leg just below the knee, caused by callus of fracture. Rigor mortis present. Hypostasis is present over the back from occiput to sacrum; also over posterior surface of arms. Calvarium was not removed. Heart, normal size. There was calcareous deposit on aortic semilunar valves; other valves were normal. There was a dilatation of ascending and transverse portions of arch of aorta. The walls of aorta were rough, and contained a calcareous deposit; right side of heart was filled with a post-mortem clot; pericardium was thickened. The bronchial lymph glands were enlarged and contained calcareous deposits; also caseated tubercles present. Lungs: Both lungs

[illegible] studded with tubercles; left lung does not crepitate, but some crepitus in [illegible] marked anthracosis of both lungs. On section left lung was solid [illegible] numerous cavities varying in size from a kernel of wheat to a [illegible] cavities were filled with pus. Pleura of right lung was [illegible] right lung was filled with a number of small cavities. Intestines [illegible]. Liver enlarged, especially the right lobe, mottled in color; [illegible] tough and resistant; gall bladder contained golden yellow fluid. [illegible] was enlarged; capsule easily stripped off; on section was found to [illegible]. Left kidney small; capsule readily stripped off; on section, no dis[illegible] was found, but several separate small pelvi. Spleen is normal in size [illegible] readily seen. Pancreas showed beginning post-mortem [illegible] normal.

W. J. P.
A. D. F.
J. F. M.

[illegible] Kentucky, admitted to the United States Marine [illegible] M., June [illegible]; died July 16, [illegible].

[illegible] patient stated his sickness began four months ago with pain in [illegible]. He [illegible] a physician, who [illegible] an abscess over the iliac [illegible]. The wound healed in about a month and he went to [illegible] wound became open again and began discharging pus [illegible] and frequently has bleeding from the nose. Physical [illegible] was brought into the ward on a stretcher as he was too [illegible] pigment spots on [illegible]. A wound [illegible] extends from right costal [illegible] middle of the wound a probe [illegible] upward and inward for the space of [illegible] on left hip, which he states [illegible] slightly increased [illegible] and [illegible] lungs are apparently [illegible] swollen from [illegible] past twenty-four hours [illegible] specific grav[illegible] a large amount of albumen and the microscope [illegible] large numbers of granular hyaline and epithelial casts. [illegible]

[illegible]

[illegible] very soft and flabby. [illegible]

weight, 415 grams; dimensions, 22 by 18 by 5 cm.; slate color; crepitant throughout; bloody serum exudes from cut surface on pressure. Left lung: Pleura adherent over whole surface of lung, so it is impossible to remove the organ without tearing it to pieces; tissue of organ more dense than right lung and has the appearance of partial consolidation; blood and serum exude from cut surface. Spleen: Adherent; enlarged; weight, 405 grams; dimensions, 14 by 5 by 10 cm; two accessory spleens near hilum. The organ is reddish brown in color, very firm consistency, and is cut with difficulty. Left kidney: Weight, 200 grams; dimensions, 13 by 8 by 3 cm.; pale yellowish-brown color. Cortex 1.5 cm. thick; streaked with yellowish lines and many yellow spots the size of a pin head; tissue firm; pyramids normal in size; much fat in pelvis. Right kidney: Weight, 200 grams; dimensions, 12 by 8 by 3.5 cm.; appearance precisely the same as the left kidney. Stomach 16 by 7.5 cm.; contains yellowish fluid in small quantity having the odor of brandy; pancreas normal. Ascending colon bound to the right kidney and to the iliac fossa by dense adhesions; sigmoid flexure bound down to the cecum; probe from the wound in right groin passes into an abcess cavity about the size of a walnut beneath cecum. Only the proximal end of the appendix can be identified. The lumen is closed. Lower part of small intestines is full of dark brown fluid; areas of induration 1 by 5 cm. in the small intestine, just above the iliocaecal valve; they run transverse to the long axis of the intestine, small points of hemorrhage on these areas. Cecum distinctly indurated, small ulcers with hard margins in cecum, and lower 2 inches of ascending colon. Mesenteric glands enlarged. Liver: Weight, 1,081 grams; dimensions, 22 by 15 by 6 cm.; dark chocolate color on surface; deep red-brown color on cut section; tissue firm and dense.

W. G. S.

C. J.; age, 37 years; nativity, Norway; was admitted to the United States Marine Hospital, port of San Francisco, Cal., July 2, 1900, and died August 7, 1900.

History.—Family history negative. Patient entered hospital complaining of a cough which had resisted medication for about three months; also complained of paralysis of right side of face, and a discharge from right ear. Expectoration was profuse and purulent. Patient's voice was very hoarse, his throat pained him, and he found it very difficult to talk. Examination showed consolidation over left lung nearly to base, and consolidation of right apex to about the third rib. There were crepitations all over right apex, and bronchial breathing over upper part of right lung. Tubercle bacilli were discovered in the sputum on July 5, 1900. Patient gradually lost weight, cough and expectoration became worse, and his pulse became very weak. On August 5 the pulse was very rapid and feeble, pulse rate being 130, with great dyspnœa, feet and hands were quite cold, and some œdema of feet. There was extreme tenderness over left side of chest. Examination showed dullness anteriorly over apex of right lung down to third rib. In left apex a cavity was evident. On auscultation, anteriorly, loud bronchial breathing and crepitation was heard over entire right lung. Egophony heard over left apex and almost entire absence of breath sounds.

August 7.—Patient failing rapidly, extreme dyspnœa, pulse very rapid and feeble, later in afternoon became unconscious and died.

Treatment at first consisted of creosote and oil, maltine and whisky. This was soon abandoned, and his strength was maintained by a nourishing diet, whisky and strychnine. His right eye was washed twice daily with a solution of boric acid, his ear was treated with peroxide of hydrogen, and a spray of Dobell's solution used on his throat.

Necropsy (eighteen hours after death).—The body is that of a poorly nourished white adult male. Post-mortem lividity is slight; rigor mortis well marked; finger nails blue, and œdema of feet and legs. Abdominal cavity: Serous fluid not increased and no great discoloration of contents. Chest: Left pleural cavity contains 500 c. c. of straw-colored fluid and a quantity of offensive gas, the lung being compressed; strong pleural adhesions at apex; right pleural cavity contains no fluid, being entirely obliterated by pulmonary adhesions; the left pleural cavity also contains a large quantity of offensive gas, the lung being retracted. Pericardial cavity contains 100 c. c. of clear fluid. Heart: Weight, 255 grams; slightly smaller than normal, flabby, and pale; the valves were competent; interventricular fat somewhat increased; no sclerosis. Lungs: Left, weight, 650 grams; consolidated throughout; sinks in water; several cavities, from the size of a cherry to that of a lemon, in superior lobes; lung much pigmented, and made up almost entirely of tubercles. Right lung, weight, 1,050 grams; surface covered by many old adhesions; apex solidified; disseminated tubercles and tubercular foci throughout lung; cavity size of a cherry in apex; lung floats. Liver: Weight, 1,630 grams;

[illegible] cross section shows anything abnormal. Gall bladder: Contains small amount of bile, bile ducts normal. Spleen: Weight 110 grams; very flabby, somewhat congested, and smaller than normal. Left kidney: 180 grams, capsule strips easily; section somewhat pale, pyelitis and pyelitis in amount. Right kidney: Weight, 160 grams; capsule nonadherent; smooth; section shows cortex somewhat granular and pale. Intestines: A [illegible] condition of the descending colon and rectum with an accumulation [illegible] matter above. There are no evidences of stricture, but several loops intestines adherent to themselves and to omentum, six large tubercular [illegible] in ileum and jejunum. Brain: Weight, 1,[illegible] grams; inflammation part of cerebrum and adhesions between duramater and pia mater. Tuberculosis of middle ear. Larynx: A tubercular ulcer on epiglottis, about [illegible] diameter, ulcer of left true vocal cord, with considerable erosion of the small vegetation on right cord.

A. M. M.
R. L. W.
[illegible] M. G.

[illegible] nativity, Sweden; admitted to United States Marine Hospital, [illegible] N. Mex., November [illegible], 1889, died August 6, 1890.

[illegible] condensed from clinical notes of [illegible] commanding officer, N. [illegible] Admitted to United States Marine Hospital April 5, 1890. [illegible] negative. Personal history: Has had malaria, scarlet fever, and [illegible]. Present attack began three years ago after exposure to cold [illegible]. Cough is constant, [illegible] loss of weight and night sweats. [illegible] shows bronchial breathing at left apex. In hospital he [illegible] for a time but then gradually grew worse again. Cough, frequent [illegible] pain in chest and dullness on percussion. Growing worse, great [illegible]. No tubercle bacilli could be demonstrated in the sputum.

C. P. W.

[illegible] on arrival at Fort Stanton, was as follows: Emaciated, [illegible] weakness, dullness in left apex with a few rales, [illegible] same and more so [illegible] left lung. Right lung apparently normal. Sputum showed many [illegible]. Urinalysis negative. The patient improved for some time up to [illegible] taking his own for quite a while, then gradually began to [illegible]. Administration of Koch's tuberculin, [illegible] seemed to check the [illegible] and even to cause some improvement generally. [illegible] the patient showed retrogression in spite [illegible] left lung and the right apex [illegible] weakness and [illegible] in the upper [illegible]. Several [illegible] occurred at different times [illegible] were detected [illegible]. Diarrhea became [illegible] and distressing. [illegible] bacilli were [illegible] in the sputum with [illegible] bacilli were [illegible]. Hemorrhagic [illegible] were [illegible] August [illegible].

[illegible] Emaciated [illegible] upper [illegible] dullness well marked. Cachexia [illegible]. Temperature [illegible] contained enlarged glands. Heart small, [illegible] at all [illegible] to water test. Pericardium adherent [illegible] contained a small amount of serous fluid. Left [illegible] adhered [illegible] with [illegible]. Right [illegible] water [illegible]. Right [illegible] large amount [illegible] ordinary [illegible] the lower lobe [illegible] the [illegible] remaining. Right apex [illegible] cavity [illegible]. Spleen and left kidney [illegible] adherent, [illegible]. Spleen [illegible]. Urinary bladder [illegible]. The stomach contained undigested [illegible] normal. Liver [illegible] normal. Pancreas normal. Mesenteric [illegible] large intestines [illegible] microscopical examination of diseased tissue [illegible] histological structure.

[illegible]
[illegible]

A. P.; age, 45; nativity, Ohio; admitted to United States Marine Hospital, Fort Stanton, N. Mex., March 8, 1900; died September 29, 1900.

History (condensed from clinical notes of medical officer in command at St. Louis, Mo.).—Admitted February 17, 1900. Family history negative. Present sickness began about nine weeks ago with soreness in diaphragm on pressure and on walking. Cough developed, rapidly getting worse. Dyspnœa, weakness, loss of weight, little expectoration, anorexia, and bowels irregular. Two chills ten weeks ago. Increased vocal fremitus on right side; respiration at right apex slightly rough and jerky. Apex beat diffused. Smooth systolic murmur present. Pulse high tension. Apparently a small hernia on right side of abdomen. The sputum contained many pneumococci, and later tubercle bacilli. Transferred to Fort Stanton.

W. G. S.

Condition as noted on arrival at Fort Stanton was as follows: Body fairly well nourished; right side somewhat depressed; tumor to right of umbilicus, with varicose veins. Palpation: Vocal fremitus over right apex; abdominal tumor gives impulse on coughing. Percussion: Pitch of right lung highest; spleen enlarged. Auscultation: Bronchial râles over both lungs; cog-wheel respiration; vocal resonance stronger in right lung superiorly. Heart: No murmur detected; apparently normal in all respects; pulse rapid. Sputum showed a few tubercle bacilli. Urinalysis negative. Gave a history of malaria, rheumatism, and alcoholism, but concealed his having had syphilis, which was revealed during the necropsy. His lung symptoms rapidly improved, but the liver and spleen began to enlarge considerably, and, together with several malarial attacks and one very severe attack of articular rheumatism, his physical condition became very poor. A loud mitral murmur developed in the course of the rheumatic seizure. The notes from St. Louis mentioned a "smooth systolic murmur," but it was not detected here on his arrival. Several days prior to death acute nephritis suddenly developed, bringing about the fatal termination September 29. The urine during this latter time was scant and loaded with albumin and casts.

Necropsy (twenty-four hours after death).—Inspection of body: Cadaveric rigidity and post-mortem lividity well marked; face and body bloated and somewhat cyanotic. Calvarium not removed. Thorax: Several enlarged glands in the anterior mediastinum. Layers of pleuræ adherent to pericardium on left side and to diaphragm on right. Visceral and parietal layers partially adherent in places. The lungs each contained scattered tubercles, most marked in the right apex, which was in a pneumonic condition. Many healed areas of scar tissue were present. The lungs were somewhat congested and the bronchi contained frothy matter. Heart much enlarged, and mitral and aortic valves incompetent to the water test. Masses of vegetations on mitral valve and in the aorta, causing stenosis; one leaflet of the aortic valve destroyed by vegetations. Pericardium thickened and contained a small amount of serous fluid, partially adherent to left pleura.[a] Abdomen: Omentum normal. Spleen enlarged and contained several large gummata, also a wide band of connective tissue constricting its middle; adhesion to tail of pancreas and left suprarenal capsule. Kidneys swollen and capsules tense, but not adherent. Considerable congestion of cortex and medulla; also several well-marked gummata in each organ. Right suprarenal in normal condition; left enlarged and adherent to tail of pancreas. Urinary bladder, organs of generation, rectum, and duodenum in normal condition. Stomach dilated and contained undigested food. Gall ducts normal. Liver much enlarged and in state of hypertrophic cirrhosis; several large gummata present. Tail of the pancreas adherent to spleen and left suprarenal capsule. The mesentery, small intestines, large intestines, and the great vessels normal. Atrophy of abdominal muscles on right side.

C. R.
J. O. C.

W. R.; age, 35; nativity, Illinois; admitted to United States Marine Hospital, Fort Stanton, N. Mex., February 14, 1900; died October 6, 1900.

History (condensed from clinical notes of medical officer in command at St. Louis, Mo.).—Family history negative. Personal history: Pneumonia in left side in 1884; also malaria. Syphilis in 1886. Chancroids twice. Present sickness began in June of 1899, from exposure to storm. Caught a heavy cold, and has had slight cough and expectoration ever since. Admitted to Marine Hospital, St. Louis, Mo., December 5, 1899. Anæmic appearance, flat chest, dyspnœa, con-

[a] The great vessels, nerve trunks, and diaphragm normal, except that the pleural layers of the latter were partly adherent.

[illegible] tactile fremitus exaggerated on right side; many asthmatic rales; on left [illegible] sounds weak with a few rales. Decreased left resonance. Got worse [illegible] with chill, pain in bones, increase of rales on left side, and of pulse [illegible] temperature. Better since the 13th. After many trials, tubercle bacilli found [in] sputum.

W. G. S.

[illegible] as noted on arrival at Fort Stanton was as follows: Depression under [illegible] evident dyspnœa and weakness, a very sick man. Palpation: fremitus greater in upper part of right lung. Percussion: No positive dull[ness] [illegible]. Auscultation: Numerous rales of various kinds all over the lungs. [illegible] weak pulse [illegible] valvular sounds seemed normal. February 18, [illegible] examination revealed slight dullness in the left apex and also in axilla. [illegible] of sputum showed a few tubercle bacilli, not perfectly typical, how[ever] [illegible] negative. After getting over the fatigue of the journey he had [illegible] attacks, but after a time began to mend steadily in every way, up [illegible] death, which was in consequence of sudden hemorrhage during [illegible]. Though the sputum of this patient was abundant and viscid, it was [illegible] to demonstrate tubercle bacilli. Such as were found were never [illegible] usually exhibited large numbers of bodies holding the pri[mary] [illegible] against acids. They may have been disintegrated tubercle bacilli, or [illegible] of the same.

[illegible] *[illegible] hours after death.* Inspection of body: Dried blood over [part] of face and the mouth contained [illegible] blood. Rigor mortis present. [illegible] Thorax: Anterior mediastinum contained several enlarged [illegible]. Heart and pericardium normal. Lungs showed partial adhesions of [illegible] layers, most marked in upper portions, especially on right side. They [illegible] consolidated areas, especially above, the right being most involved [illegible] the left showing remains of a ruptured blood ves[sel] [illegible] responsible for the fatal hemorrhage. Many signs of [illegible] Abdomen: [illegible] Spleen had a [illegible] upper part, causing adhesion [illegible] Kidneys [illegible] small [illegible] Microscopical examina[tion] [illegible]

[illegible]

[illegible]

[illegible] admitted to the United [States] Marine Hospital [illegible]

[illegible]

of tubercles and their inflammatory zone, almost complete consolidation. Two small cavities are seen, one predisposing to the immediate cause of death. It is situated in the narrow strip of lung tissue between that branch of the pulmonary artery and bronchus that supplies the apex of the lung. Communication was apparently first made with the bronchus, and then the ulcerative process attacked the artery, establishing a free communication and causing death through hemorrhage. Pleura: Normal on the left side; adherent to the lung on the right side, as previously stated. Aorta and vena cava are both normal. Spleen: Smaller in size than normal; weight, 185 grams; structure apparently normal. Left kidney: Weight, 170 grams; apparently normal. Right kidney: Weight, 150 grams; apparently normal. Liver: Weight, 1,690 grams; slightly enlarged, but no pathological lesions are noticed. Gall bladder contains about 15 cc. bile. Stomach and intestines apparently normal. Appendix about 12 cm. long; free from mesoappendix except about 3 cm. at base. Urinary bladder empty.

From personal observation I would estimate that this man lost about 2 quarts of blood before death, death being caused either by the direct loss of blood or by suffocation. Post-mortem diagnosis: Tubercle of lung. Complications: Rupture of the pulmonary artery into the superior bronchus of the right side.

H. B. P.
C. P. W.

J. S.; age, 30; nativity, Kentucky; admitted to the United States Marine Hospital, Evansville, Ind., July 14, 1900, and died November 8, 1900.

History.—On admission he complained of having been sick about ten days with fever, pain in left side, and a cough. His respirations were short and rapid. Examination showed extensive consolidation of left lung. Case was diagnosed as lobar pneumonia. He did not improve. Fever remained high. Case was readmitted on August 7, 1900, as tubercle. He failed rapidly, and died at 3.45 a. m., November 8, 1900.

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J. H. O.

L. J.; age, 56 years; nativity, Canada; admitted to United States Marine Hospital, Cleveland, Ohio, June 21, 1900; died September 28, 1900.

Clinical history.—Patient began to cough about four weeks previous to being admitted to hospital; has had severe night sweats, profuse purulent expectoration, diarrhea, and has had some pain in upper part of right side of chest: he has lost about 27 pounds within the last two months. Appetite is poor and patient is emaciated; has dyspnœa on exertion. Supraclavicular spaces are deep; clavicles, prominent. Expansion of left side of thorax is retarded. Respirations are hurried and superficial. Breathing at both apices is roughened. Left infraclavicular space is dull. There is prolonged expiration over both apices. Over both lungs, anteriorly and posteriorly, loud, moist râles are heard. Area of heart dullness is increased; heart sounds are loud, and pulse is quick and rather weak. Tubercle bacilli found in large numbers in sputum; also staphylococci. Sputum is profuse and purulent and of a nummular character.

Necropsy (five hours after death).—Body of an Indian, of medium build; rather emaciated. Enlargement of bones of left leg just below the knee, caused by callus of fracture. Rigor mortis present. Hypostasis is present over the back from occiput to sacrum; also over posterior surface of arms. Calvarium was not removed. Heart, normal size. There was calcareous deposit on aortic semilunar valves; other valves were normal. There was a dilatation of ascending and transverse portions of arch of aorta. The walls of aorta were rough, and contained a calcareous deposit; right side of heart was filled with a post-mortem clot; pericardium was thickened. The bronchial lymph glands were enlarged and contained calcareous deposits; also caseated tubercles present. Lungs: Both lungs

[illegible] with tubercles. Left lung does not crepitate, but some crepitus in [illegible] marked anthracosis of both lungs. On section, left lung was solid [illegible] cavities varying in size from a kernel of wheat to a [illegible] cavities were filled with pus. Pleura of right lung was [illegible] lung was filled with a number of small cavities. Intestines [illegible]. Liver enlarged, especially the right lobe; mottled in color; [illegible] was tough and resistant; gall bladder contained golden yellow fluid. [illegible] was enlarged; capsule easily stripped off; on section was found to [illegible]. Left kidney small; capsule readily stripped off; on section, no dis[illegible] was found; but several separate small pelvi[illegible]. Spleen is normal in size [illegible] readily seen. Pancreas showed beginning post-mortem [illegible] normal.

W. J. P.
A. D. F.
J. F. M.

[illegible] Kentucky; admitted to the United States Marine [illegible] June [illegible] died July 16, 1890.

[illegible] patient stated his sickness began four months ago with pain in [illegible]. He consulted a physician, who discovered an abscess over the iliac [illegible]. The wound healed in about a month and he went to [illegible] was became open again and began discharging pus. [illegible] frequently has bleeding from the nose. Physical [illegible] was brought into the ward on a stretcher, as he was too [illegible] well nourished; many papules and pigment spots on [illegible]. A wound 12 cm. long extends from right costal [illegible] Poupart's ligament. From the middle of this wound a prole[illegible] upward and inward for the space of 5 cm. [illegible] a large scar on left hip which he states [illegible]. The area of cardiac dullness is slightly increased [illegible] lower left chest, just above and [illegible] heart and lungs are apparently nor[illegible]. A [illegible] found ankles and genitals much swollen from [illegible] specific grav[illegible] a large amount of albumen, and the microscope [illegible] large numbers of granular, hyaline, and epithelial casts, [illegible]. The blood contains no malarial organisms [illegible] respiration [illegible]. On June 11 his albumen was [illegible] that resembling a mixture of soap and water [illegible] complained of a severe pain in his left side and [illegible]. The sputum was examined on the [illegible] present. He had two chills on June [illegible] July [illegible] malaria were present, but [illegible] he had become greatly emaciated, and [illegible] appearance. He refused to take any food and [illegible] mouth and lips. He died at [illegible] July [illegible] regular fever, the temperature ranging from [illegible] the respirations from [illegible].

[illegible] Body of a black adult male [illegible] long [illegible] numerous small lenticular spots on skin [illegible] left arm. Right leg rigid; [illegible] left leg [illegible] ankles edematous. Wound [illegible] largely modified Poupart's ligament. Muscles [illegible] from [illegible] the left hand, membranes [illegible] [illegible] there is a small thin blood [illegible] [illegible] there is a flow of [illegible] [illegible] Pericardium adherent [illegible] heart [illegible] [illegible] very soft and flabby. Right lung adherent [illegible]

weight, 415 grams; dimensions, 22 by 18 by 5 cm.; slate color; crepitant throughout; bloody serum exudes from cut surface on pressure. Left lung: Pleura adherent over whole surface of lung, so it is impossible to remove the organ without tearing it to pieces; tissue of organ more dense than right lung and has the appearance of partial consolidation; blood and serum exude from cut surface. Spleen: Adherent; enlarged; weight, 405 grams; dimensions, 14 by 5 by 10 cm; two accessory spleens near hilum. The organ is reddish brown in color, very firm consistency, and is cut with difficulty. Left kidney: Weight, 200 grams; dimensions, 13 by 8 by 3 cm.; pale yellowish-brown color. Cortex 1.5 cm. thick; streaked with yellowish lines and many yellow spots the size of a pin head; tissue firm; pyramids normal in size; much fat in pelvis. Right kidney: Weight, 200 grams; dimensions, 12 by 8 by 3.5 cm.; appearance precisely the same as the left kidney. Stomach 16 by 7.5 cm.; contains yellowish fluid in small quantity having the odor of brandy; pancreas normal. Ascending colon bound to the right kidney and to the iliac fossa by dense adhesions; sigmoid flexure bound down to the cecum; probe from the wound in right groin passes into an abcess cavity about the size of a walnut beneath cecum. Only the proximal end of the appendix can be identified. The lumen is closed. Lower part of small intestines is full of dark brown fluid; areas of induration 1 by 5 cm. in the small intestine, just above the iliocaecal valve; they run transverse to the long axis of the intestine, small points of hemorrhage on these areas. Cecum distinctly indurated, small ulcers with hard margins in cecum, and lower 2 inches of ascending colon. Mesenteric glands enlarged. Liver: Weight, 1,081 grams; dimensions, 22 by 15 by 6 cm.; dark chocolate color on surface; deep red-brown color on cut section; tissue firm and dense.

W. G. S.

C. J.; age, 37 years; nativity, Norway; was admitted to the United States Marine Hospital, port of San Francisco, Cal., July 2, 1900, and died August 7, 1900.

History.—Family history negative. Patient entered hospital complaining of a cough which had resisted medication for about three months; also complained of paralysis of right side of face, and a discharge from right ear. Expectoration was profuse and purulent. Patient's voice was very hoarse, his throat pained him, and he found it very difficult to talk. Examination showed consolidation over left lung nearly to base, and consolidation of right apex to about the third rib. There were crepitations all over right apex, and bronchial breathing over upper part of right lung. Tubercle bacilli were discovered in the sputum on July 5, 1900. Patient gradually lost weight, cough and expectoration became worse, and his pulse became very weak. On August 5 the pulse was very rapid and feeble, pulse rate being 130, with great dyspnœa, feet and hands were quite cold, and some œdema of feet. There was extreme tenderness over left side of chest. Examination showed dullness anteriorly over apex of right lung down to third rib. In left apex a cavity was evident. On auscultation, anteriorly, loud bronchial breathing and crepitation was heard over entire right lung. Egophony heard over left apex and almost entire absence of breath sounds.

August 7.—Patient failing rapidly, extreme dyspnœa, pulse very rapid and feeble, later in afternoon became unconscious and died.

Treatment at first consisted of creosote and oil, maltine and whisky. This was soon abandoned, and his strength was maintained by a nourishing diet, whisky and strychnine. His right eye was washed twice daily with a solution of boric acid, his ear was treated with peroxide of hydrogen, and a spray of Dobell's solution used on his throat.

Necropsy (eighteen hours after death).—The body is that of a poorly nourished white adult male. Post-mortem lividity is slight; rigor mortis well marked; finger nails blue, and œdema of feet and legs. Abdominal cavity: Serous fluid not increased and no great discoloration of contents. Chest: Left pleural cavity contains 500 c. c. of straw-colored fluid and a quantity of offensive gas, the lung being compressed; strong pleural adhesions at apex; right pleural cavity contains no fluid, being entirely obliterated by pulmonary adhesions; the left pleural cavity also contains a large quantity of offensive gas, the lung being retracted. Pericardial cavity contains 100 c. c. of clear fluid. Heart: Weight, 255 grams; slightly smaller than normal, flabby, and pale; the valves were competent; interventricular fat somewhat increased; no sclerosis. Lungs: Left, weight, 650 grams; consolidated throughout; sinks in water; several cavities, from the size of a cherry to that of a lemon, in superior lobes; lung much pigmented, and made up almost entirely of tubercles. Right lung, weight, 1,050 grams; surface covered by many old adhesions; apex solidified; disseminated tubercles and tubercular foci throughout lung; cavity size of a cherry in apex; lung floats. Liver: Weight, 1,680 grams;

[illegible] surface nor [illegible] section shows anything abnormal. Gall bladder: Con[illegible] normal amount of bile; bile ducts normal. Spleen: Weight [illegible] grams, very [illegible] flabby, somewhat congested, and smaller than normal. Left kidney: [illegible] grams; capsule strips easily; section somewhat pale; perinephritic [illegible] in amount. Right kidney: Weight [illegible] grams; capsule nonadherent, [illegible] smooth; section shows cortex somewhat granular and pale. Intestines: A [illegible] condition of the descending colon and rectum, with an accumulation of fecal matter above. There are no evidences of stricture, but several loops [illegible] intestines adherent to themselves and to omentum; six large tubercular [illegible] in ileum and jejunum. Brain: Weight [illegible] grams; inflammation [illegible] part of cerebrum and adhesions between dura mater and pia mater. Tuber[illegible] middle ear. Larynx: A tubercular ulcer [illegible] about [illegible] of left true vocal cord, with [illegible] of the [illegible] right cord.

A. M. M.
R. L. W.
M. G.

[illegible] Swede; admitted to United States Marine Hospital, [illegible] N. Mex., November [illegible], 189[illegible]; died August 6, 1900.

[illegible] *[illegible] pulmonal[illegible]* [illegible]

[illegible] Admitted to United States Marine Hospital April [illegible], 1900. [illegible] Personal history: Has had malaria, scarlet fever, and [illegible] began three years ago after exposure to cold. [illegible] constant [illegible] weight [illegible] night sweats [illegible] In hospital [illegible] then gradually grew worse again. Cough frequent [illegible] chest and dullness on percussion. Growing worse; great [illegible] No tubercle bacilli could be demonstrated in the sputum.

C. P. W.

[illegible] at Fort Stanton [illegible] Examination [illegible] chest [illegible] left [illegible] râles [illegible] Right lung apparently normal. Sputum [illegible] negative. The patient [illegible] for [illegible] his own [illegible] K[illegible]

[illegible]

[illegible] and [illegible] structure.

A. P.; age, 45; nativity, Ohio; admitted to United States Marine Hospital, Fort Stanton, N. Mex., March 8, 1900; died September 29, 1900.

History (condensed from clinical notes of medical officer in command at St. Louis, Mo.).—Admitted February 17, 1900. Family history negative. Present sickness began about nine weeks ago with soreness in diaphragm on pressure and on walking. Cough developed, rapidly getting worse. Dyspnœa, weakness, loss of weight, little expectoration, anorexia, and bowels irregular. Two chills ten weeks ago. Increased vocal fremitus on right side; respiration at right apex slightly rough and jerky. Apex beat diffused. Smooth systolic murmur present. Pulse high tension. Apparently a small hernia on right side of abdomen. The sputum contained many pneumococci, and later tubercle bacilli. Transferred to Fort Stanton.

W. G. S.

Condition as noted on arrival at Fort Stanton was as follows: Body fairly well nourished; right side somewhat depressed; tumor to right of umbilicus, with varicose veins. Palpation: Vocal fremitus over right apex; abdominal tumor gives impulse on coughing. Percussion: Pitch of right lung highest; spleen enlarged. Auscultation: Bronchial râles over both lungs; cog-wheel respiration; vocal resonance stronger in right lung superiorly. Heart: No murmur detected; apparently normal in all respects; pulse rapid. Sputum showed a few tubercle bacilli. Urinalysis negative. Gave a history of malaria, rheumatism, and alcoholism, but concealed his having had syphilis, which was revealed during the necropsy. His lung symptoms rapidly improved, but the liver and spleen began to enlarge considerably, and, together with several malarial attacks and one very severe attack of articular rheumatism, his physical condition became very poor. A loud mitral murmur developed in the course of the rheumatic seizure. The notes from St. Louis mentioned a "smooth systolic murmur," but it was not detected here on his arrival. Several days prior to death acute nephritis suddenly developed, bringing about the fatal termination September 29. The urine during this latter time was scant and loaded with albumin and casts.

Necropsy (twenty-four hours after death).—Inspection of body: Cadaveric rigidity and post-mortem lividity well marked; face and body bloated and somewhat cyanotic. Calvarium not removed. Thorax: Several enlarged glands in the anterior mediastinum. Layers of pleuræ adherent to pericardium on left side and to diaphragm on right. Visceral and parietal layers partially adherent in places. The lungs each contained scattered tubercles, most marked in the right apex, which was in a pneumonic condition. Many healed areas of scar tissue were present. The lungs were somewhat congested and the bronchi contained frothy matter. Heart much enlarged, and mitral and aortic valves incompetent to the water test. Masses of vegetations on mitral valve and in the aorta, causing stenosis; one leaflet of the aortic valve destroyed by vegetations. Pericardium thickened and contained a small amount of serous fluid, partially adherent to left pleura.[a] Abdomen: Omentum normal. Spleen enlarged and contained several large gummata, also a wide band of connective tissue constricting its middle; adhesion to tail of pancreas and left suprarenal capsule. Kidneys swollen and capsules tense, but not adherent. Considerable congestion of cortex and medulla; also several well-marked gummata in each organ. Right suprarenal in normal condition; left enlarged and adherent to tail of pancreas. Urinary bladder, organs of generation, rectum, and duodenum in normal condition. Stomach dilated and contained undigested food. Gall ducts normal. Liver much enlarged and in state of hypertrophic cirrhosis; several large gummata present. Tail of the pancreas adherent to spleen and left suprarenal capsule. The mesentery, small intestines, large intestines, and the great vessels normal. Atrophy of abdominal muscles on right side.

C. R.
J. O. C.

W. R.; age, 35; nativity, Illinois; admitted to United States Marine Hospital, Fort Stanton, N. Mex., February 14, 1900; died October 6, 1900.

History (condensed from clinical notes of medical officer in command at St. Louis, Mo.).—Family history negative. Personal history: Pneumonia in left side in 1884; also malaria. Syphilis in 1886. Chancroids twice. Present sickness began in June of 1899, from exposure to storm. Caught a heavy cold, and has had slight cough and expectoration ever since. Admitted to Marine Hospital, St. Louis, Mo., December 5, 1899. Anæmic appearance, flat chest, dyspnœa, con-

[a] The great vessels, nerve trunks, and diaphragm normal, except that the pleural layers of the latter were partly adherent.

[illegible] fremitus exaggerated, on right side many asthmatic rales, on left [illegible] weak with a few rales. Decreased left resonance. Got worse [illegible] with chill, pain in loins, increase of rales on left side, and of pulse [illegible]. Better since the 13th. After many trials, tubercle bacilli found [illegible].

W. G. S.

[illegible] on arrival at Fort Stanton was as follows: Depression under [illegible] evident dyspnœa and weakness, a very sick man. Palpation: [illegible] greater in upper part of right lung. Percussion: No positive dull [illegible]. Auscultation: Numerous rales of various kinds all over the lungs. A [illegible] weak pulse. [illegible] valvular sounds seemed normal. February 18, [illegible] slight dullness in the left apex and also in axilla. [illegible] showed a few tubercle bacilli, not perfectly typical, how- [illegible] negative. After getting over the fatigue of the journey he had [illegible] after a time began to mend steadily in every way, up [illegible] which was [illegible] of sudden hemorrhage during [illegible] this patient was abundant and viscid, it was [illegible] tubercle bacilli. Such bacilli were found were never [illegible] exhibited large numbers of bacilli holding the pri- [illegible] They may have been disintegrated tubercle bacilli, or [illegible] same.

[illegible] Inspection of body: Dried blood over [illegible] the mouth contained [illegible] blood. Rigor mortis present. [illegible] Thorax: Anterior mediastinum contained several enlarged [illegible]. Heart and pericardium normal. Lungs showed partial adhesions of [illegible] marked in upper portions, especially on right side. They [illegible] especially above the right lung most involved [illegible] showing remains of a ruptured blood ves- [illegible] hemorrhage. Many signs of [illegible] Abdomen: Omen- [illegible] in the upper part, causing adhesions [illegible]. Kidneys: [illegible] organs of [illegible] Microscopical examina- [illegible]

[illegible]

[illegible]

[illegible]

right ventricle empty; thickness of wall, 7 mm.; left ventricle contains dark clots; valves normal; thickness of wall, 1½ cm. Right lung: Weight, 1,410 grams; measurements, 26 by 22 by 8 cm.; color, reddish slate; tissue crepitant; numerous small tubercles present throughout the whole lung; no evidence of the tissue having broken down, nor does any pus exude on section. Left lung: Weight, 1,005 grams; measurements, 22 by 18 by 6 cm.; condition the same as the right lung. Spleen: Weight, 440 grams; measurements, 16 by 12 by 5.5 cm.; pulp very soft; color, reddish brown. Left kidney: Weight, 230 grams; cortical portion 7 cm. thick; color pale red. Right kidney: Weight, 220 grams; measurements, 14 by 9 by 4 cm.; cortical portion of a yellowish-red color, the yellow being in spots and streaks; thickness of cortical portion, 1 cm. The walls of the lower part of the ileum are filled with small tubercles. One round ulcer is present in the ileum, about 2.5 cm. from the mesenteric attachment and about 10 cm. from the cæcum; this ulcer has healed; it involves the muscular layer of the intestines only, the floor being formed by the peritoneal covering. This ulcer was about 1.5 cm. in diameter. Some of the mesenteric glands are indurated. Liver: Weight, 1,934 grams; measurements, 31 by 22 by 7 cm.; color on section of tissue reddish brown.

W. G. S.

K. H.; age, 27 years; nativity, Sweden; admitted to United States Marine Hospital, Fort Stanton, N. Mex., November 21, 1899; died August 6, 1900.

History (taken from clinical notes of the medical officer in command, Wilmington, N. C.).—Family history negative. Has had malaria and scarlet and yellow fevers as a child. Present attack began three years ago, after exposure to cold; bronchitis developed, and since then he has had a constant cough, varying in intensity, constantly losing weight. Has night sweats at rare intervals. Examination of chest: Bronchial breathing at both apices. Since admission to hospital there was at first marked improvement, but gradually the symptoms returned with increased severity, cough became worse, night sweats more frequent, dullness on percussion more marked; patient complaining of a dull pain, varying in intensity, first on one side and then on the other.

April 5, 1900.—The lungs were again examined, and showed increased roughened breathing at both apices; dullness more marked. Examination of sputum failed to reveal the tubercle bacilli. For five months past patient has been slowly growing worse, sometimes appearing much improved, but this succeeded by returns of the distressing symptoms. There has been no great loss in weight, and at the same time there has been little or no gain. The treatment throughout has consisted chiefly of cod-liver oil and creosote, with such symptomatic treatment as was necessary. Present condition: Has large deposit of tuberculous tissue in apex of left lung, and in posterior part of lower lobe on left side. There is considerable pleurisy at the apex. The right apex is also affected.

November 21, 1899.—Weight, 121.25 pounds. Inspection: Limited respiration on left side. Slight depression about 5 cm. below left clavicle. Palpation: Vocal fremitus increased over upper part of left lung posteriorly. Auscultation: Numerous râles heard over entire left lung and over right lung to third or fourth rib; râles most marked in left apex and just below left clavicle. Respiration normal in right lung below third rib. Heart: Pulmonary second sound much accentuated; otherwise heart is normal as regards position, size, and valves; pulse rapid. Sputum: Tubercle bacilli found in great numbers.

February 22.—Dullness in right apex also; râles same in both lungs as at previous examination, but now have a more pronounced clicking sound; dullness in lower part of left lung posteriorly from lower margin of thorax for about 7.5 cm. above. Complains of gurgling during respiration in middle lobe of right lung. The patient continued to have high temperatures, but even then he was always cheerful and hopeful of recovery. His appetite was fairly good most of the time.

December 18.—Patient was given another physical examination and the lesion seemed to be spreading, and both lungs showed foci of infection throughout. The latter part of March there was a marked improvement, and he was moved into a general ward. A few days after, he contracted tubercular pneumonia and nearly died. He gradually and slowly went down after this. The hemoglobin remained close to 75 per cent, and the blood count at 4,000,000 until a few weeks before his death, and then ran down rapidly. He responded nicely at all times to the diazo reaction. Had several slight hemorrhages from time to time; also had them before coming here. He died from exhaustion.

Necropsy (thirteen hours after death).—Body very much emaciated. Rigor mortis well marked. Skin yellowish; no bedsores. The thorax examined in the usual manner. The pleuræ and pericardium were firmly adherent to the anterior

all, which restricted the excursion of the heart. Heart small, all of its g absorbed; valves normal; pericardium firmly united to the pleura; ures were so firmly bound down that it necessitated the dissection of both to be able to remove them. The apex of the left lung was broken down, a large irregular cavity from which there had been some oozing. The n the right apex was healing. The other portions of the lung tissue were throughout with deposits, some of which were breaking down. The al glands were destroyed. The great vessels were normal; spleen was very kidneys were hyperæmic and larger than normal; suprarenal capsules, bladder, organs of generation, rectum, duodenum, and stomach were liver was much enlarged, extending over the left hypochondriac region; it able and the capsule could easily be removed. The gall bladder, gall mesentery, small intestines, large intestines, and great blood ves e normal. The appendix was about 10 cm. long, was turned up, and it to the under side of the liver.

J. O. C.

age 28 years; nativity, Russia; admitted to United States Marine Hos Baltimore, Md., July 11, 1889; died September 6, 1889.

ry. Family history entirely negative. Personal history: Temperate in all never ill before the onset of present disease. Present illness: Two years ago e in the left side, the ball entering between the seventh and eighth ribs in a h the axillary border of the scapula. For eight days there was bloody expe rand aphonia. Remained in hospital two months and twenty-eight days and h three months in which to rest. Admitted to United States Marine Hos ston, Mass., in April, 1889, because of weakness and insomnia occasioned k. At the end of two months and sixteen days felt strong enough to work s discharged at his own request, but upon reaching Baltimore was again r w ill and applied for admission to hospital. The general condition on ce was [illegible]. Inspection shows a long flat chest with supra- and infra lar spaces sunken. Palpation showed diminished expansion and increased resistance, particularly marked on right side. Auscultation: Crackling moist and bubbling rales distributed throughout entire chest and amphoric ng over an area on the left anterior chest wall extending from the second third ribs and about 1 inch in diameter. Examination of the sputum tuberclebacilli in great numbers.

[illegible]. Body extremely emaciated. Rigor mortis ight. Moderate degree of post mortem lividity. Chest: Pericardial sac contained [illegible] of fluid. Heart: Contained [illegible] of blood. A [illegible] was found in left ventricle. Weight, [illegible] grams [illegible]. The ventricular walls were of normal thickness and resistance, [illegible] pulmonary and tricuspid valves [illegible]. Thoracic and [illegible] arteries normal. Respiratory organs: Nares, larynx, [illegible] normal. Both pleural cavities showed a most exceptional condition [illegible] adhesions, the entire pleura of both sides being bound down by [illegible] adhesions so tightly that it was impossible to remove either [illegible]. The pleural cavities contained no fluid. Right lung: Numerous [illegible] in upper and middle lobe ranging in size from a pea to a walnut, [illegible] a very offensive purulent fluid. Weight, [illegible] grams. Left lung: Near [illegible] of apex a cavity the size of a [illegible] orange, along with [illegible] were several smaller cavities, all filled with [illegible] contained in the cavities of right lung. The whole lung [illegible] and filled with [illegible] matter. Weight, [illegible] grams. [illegible] apparently normal. Liver normal. Weight [illegible]. Pancreas [illegible]. Capsules of both kidneys [illegible]. Weight [illegible] grams; left, [illegible] grams. [illegible] normal; weight, [illegible] grams. [illegible] and stomach normal. [illegible] of the jejunum and the [illegible] of other varying degrees of [illegible] intestine and situated opposite the [illegible]. Liver apparently normal. Rectum presented [illegible]. Mesenteric glands were enlarged and indurated. The [illegible] and lymph were normal. Weight of brain, [illegible] gram.

W. [illegible]
C. [illegible]

ENTERIC FEVER.

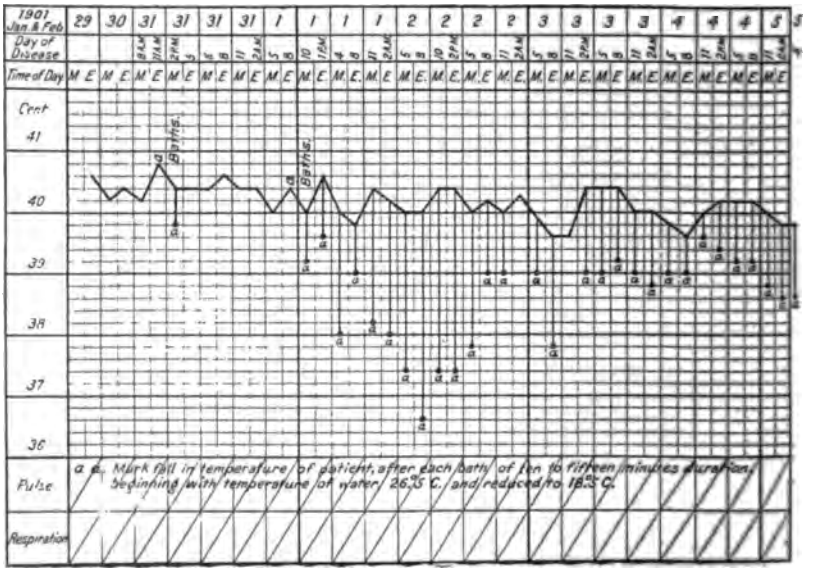
Inflammation of mucous membrane of larynx, acute catarrhal.

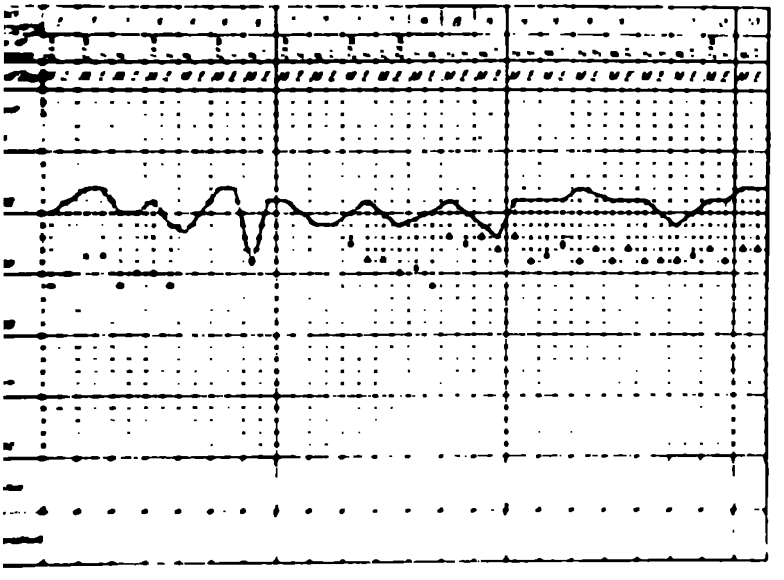
J. D.; age, 46 years; nativity, Sweden; admitted to United States Marine Hospital, port of San Francisco, Cal., January 29, 1901; died May 26, 1901.

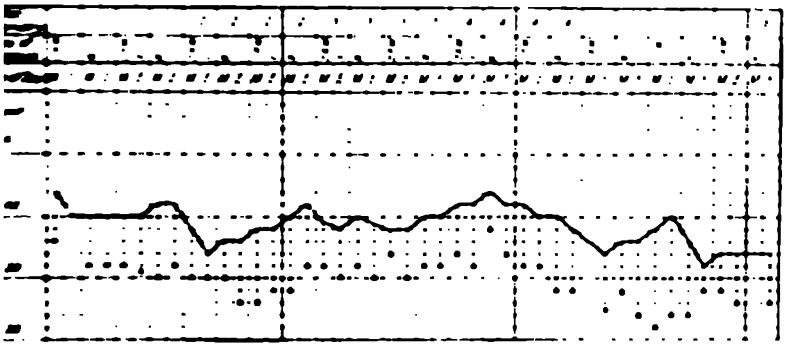
History.—On entering patient complained of pain in the abdomen, occasional chills, and inability to eat. Bowels regular. Examination showed rose spots on abdomen and lower thorax; moderate tympanites. Temperature, 40.6 C. The tympanites increased, masking the liver dullness. The temperature remained high, only being controlled by baths. Sordes were present. Bowels became open, moving three or four times a day. In the second week patient became somnolent, the heart's action became rapid, the sounds being muffled. At this time appeared a slight hacking cough. The diazo reaction was present in the urine. At the end of the second week ecchymoses appeared on the scrotum and thighs, and a purulent discharge came from the left ear. The signs cleared up, with the exception of the cough and a rapid, low-tension pulse. The hearing became better and the ear condition improved. Patient discharged, recovered from enteric fever, April 11, and readmitted for acute catarrhal inflammation of larynx, mucous membrane, April 12. The patient improved under inhalation treatment, the temperature becoming normal and breathing easier, though irritation of the larynx and vocal cords was still present. May 17, severe attack of dyspnœa and cardiac failure threatened. Improved until May 20, when he died suddenly of heart failure in spite of active stimulative treatment.

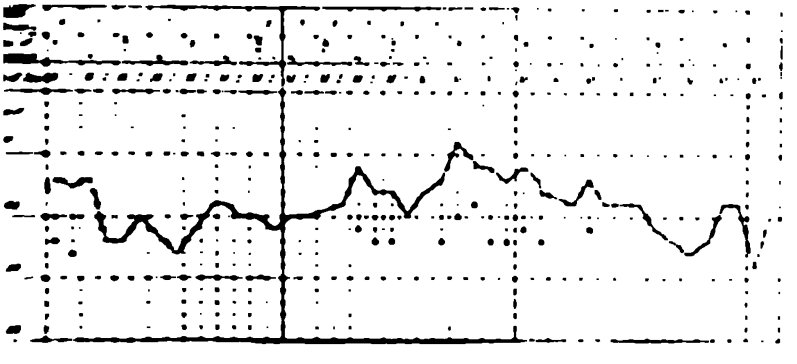
Treatment.—On admission for the first time patient was given a gentle mercurial purge with aromatics for two days, when treatment by means of cold baths, whisky, and strychnine was instituted. The other treatment was local, listerine for the mouth, boric-acid solution to wash out the ear, laxatives and stimulants as indicated. As the enteric symptoms subsided tonics—chloride of iron and Fowler's solution of arsenic—were given, alternating with quinine. At the time of the first discharge patient was on potassium iodide and protoiodide of mercury pills. He was also receiving a cough mixture containing morphine sulphate and ammonium chloride. During the second period treatment was continued with the addition of a tent over bed connected with a steam kettle for giving inhalation of turpentine vapor. At the time of death patient was on potassium iodide. Large doses of alcohol and strychnine were given in the hope of supporting the heart, but all efforts were unavailing.

U. S. Marine Hospital, port of San Francisco, Cal.
Name J. D.; age, 46 years; disease, enteric fever.









weight, 415 grams; dimensions, 22 by 18 by 5 cm.; slate color; crepitant throughout; bloody serum exudes from cut surface on pressure. Left lung: Pleura adherent over whole surface of lung, so it is impossible to remove the organ without tearing it to pieces; tissue of organ more dense than right lung and has the appearance of partial consolidation; blood and serum exude from cut surface. Spleen: Adherent; enlarged; weight, 405 grams; dimensions, 14 by 5 by 10 cm; two accessory spleens near hilum. The organ is reddish brown in color, very firm consistency, and is cut with difficulty. Left kidney: Weight, 200 grams; dimensions, 13 by 8 by 3 cm.; pale yellowish-brown color. Cortex 1.5 cm. thick; streaked with yellowish lines and many yellow spots the size of a pin head; tissue firm; pyramids normal in size; much fat in pelvis. Right kidney: Weight, 200 grams; dimensions, 12 by 8 by 3.5 cm.; appearance precisely the same as the left kidney. Stomach 16 by 7.5 cm.; contains yellowish fluid in small quantity having the odor of brandy; pancreas normal. Ascending colon bound to the right kidney and to the iliac fossa by dense adhesions; sigmoid flexure bound down to the cæcum; probe from the wound in right groin passes into an abcess cavity about the size of a walnut beneath ceacum. Only the proximal end of the appendix can be identified. The lumen is closed. Lower part of small intestines is full of dark brown fluid; areas of induration 1 by 5 cm. in the small intestine, just above the iliocaecal valve; they run transverse to the long axis of the intestine, small points of hemorrhage on these areas. Ceacum distinctly indurated, small ulcers with hard margins in ceacum, and lower 2 inches of ascending colon. Mesenteric glands enlarged. Liver: Weight, 1,081 grams; dimensions, 22 by 15 by 6 cm.; dark chocolate color on surface; deep red-brown color on cut section; tissue firm and dense.

W. G. S.

C. J.; age, 37 years; nativity, Norway; was admitted to the United States Marine Hospital, port of San Francisco, Cal., July 2, 1900, and died August 7, 1900.

History.—Family history negative. Patient entered hospital complaining of a cough which had resisted medication for about three months; also complained of paralysis of right side of face, and a discharge from right ear. Expectoration was profuse and purulent. Patient's voice was very hoarse, his throat pained him, and he found it very difficult to talk. Examination showed consolidation over left lung nearly to base, and consolidation of right apex to about the third rib. There were crepitations all over right apex, and bronchial breathing over upper part of right lung. Tubercle bacilli were discovered in the sputum on July 5, 1900. Patient gradually lost weight, cough and expectoration became worse, and his pulse became very weak. On August 5 the pulse was very rapid and feeble, pulse rate being 130, with great dyspnœa, feet and hands were quite cold, and some œdema of feet. There was extreme tenderness over left side of chest. Examination showed dullness anteriorly over apex of right lung down to third rib. In left apex a cavity was evident. On auscultation, anteriorly, loud bronchial breathing and crepitation was heard over entire right lung. Ægophony heard over left apex and almost entire absence of breath sounds.

August 7.—Patient failing rapidly, extreme dyspnœa, pulse very rapid and feeble, later in afternoon became unconscious and died.

Treatment at first consisted of creosote and oil, maltine and whisky. This was soon abandoned, and his strength was maintained by a nourishing diet, whisky and strychnine. His right eye was washed twice daily with a solution of boric acid, his ear was treated with peroxide of hydrogen, and a spray of Dobell's solution used on his throat.

Necropsy (eighteen hours after death).—The body is that of a poorly nourished white adult male. Post-mortem lividity is slight; rigor mortis well marked; finger nails blue, and œdema of feet and legs. Abdominal cavity: Serous fluid not increased and no great discoloration of contents. Chest: Left pleural cavity contains 500 c. c. of straw-colored fluid and a quantity of offensive gas, the lung being compressed; strong pleural adhesions at apex; right pleural cavity contains no fluid, being entirely obliterated by pulmonary adhesions; the left pleural cavity also contains a large quantity of offensive gas, the lung being retracted. Pericardial cavity contains 100 c. c. of clear fluid. Heart: Weight, 255 grams; slightly smaller than normal, flabby, and pale; the valves were competent; interventricular fat somewhat increased; no sclerosis. Lungs: Left, weight, 650 grams; consolidated throughout; sinks in water; several cavities, from the size of a cherry to that of a lemon, in superior lobes; lung much pigmented, and made up almost entirely of tubercles. Right lung, weight, 1,050 grams; surface covered by many old adhesions; apex solidified; disseminated tubercles and tubercular foci throughout lung; cavity size of a cherry in apex; lung floats. Liver: Weight, 1,630 grams;

A. M. M.
S. L. W.
M. G.

A. P.; age, 45; nativity, Ohio; admitted to United States Marine Hospital, Fort Stanton, N. Mex., March 8, 1900; died September 29, 1900.

History (condensed from clinical notes of medical officer in command at St. Louis, Mo.).—Admitted February 17, 1900. Family history negative. Present sickness began about nine weeks ago with soreness in diaphragm on pressure and on walking. Cough developed, rapidly getting worse. Dyspnœa, weakness, loss of weight, little expectoration, anorexia, and bowels irregular. Two chills ten weeks ago. Increased vocal fremitus on right side; respiration at right apex slightly rough and jerky. Apex beat diffused. Smooth systolic murmur present. Pulse high tension. Apparently a small hernia on right side of abdomen. The sputum contained many pneumococci, and later tubercle bacilli. Transferred to Fort Stanton.

W. G. S.

Condition as noted on arrival at Fort Stanton was as follows: Body fairly well nourished; right side somewhat depressed; tumor to right of umbilicus, with varicose veins. Palpation: Vocal fremitus over right apex; abdominal tumor gives impulse on coughing. Percussion: Pitch of right lung highest; spleen enlarged. Auscultation: Bronchial râles over both lungs; cog-wheel respiration; vocal resonance stronger in right lung superiorly. Heart: No murmur detected; apparently normal in all respects; pulse rapid. Sputum showed a few tubercle bacilli. Urinalysis negative. Gave a history of malaria, rheumatism, and alcoholism, but concealed his having had syphilis, which was revealed during the necropsy. His lung symptoms rapidly improved, but the liver and spleen began to enlarge considerably, and, together with several malarial attacks and one very severe attack of articular rheumatism, his physical condition became very poor. A loud mitral murmur developed in the course of the rheumatic seizure. The notes from St. Louis mentioned a "smooth systolic murmur," but it was not detected here on his arrival. Several days prior to death acute nephritis suddenly developed, bringing about the fatal termination September 29. The urine during this latter time was scant and loaded with albumin and casts.

Necropsy (twenty-four hours after death).—Inspection of body: Cadaveric rigidity and post-mortem lividity well marked; face and body bloated and somewhat cyanotic. Calvarium not removed. Thorax: Several enlarged glands in the anterior mediastinum. Layers of pleuræ adherent to pericardium on left side and to diaphragm on right. Visceral and parietal layers partially adherent in places. The lungs each contained scattered tubercles, most marked in the right apex, which was in a pneumonic condition. Many healed areas of scar tissue were present. The lungs were somewhat congested and the bronchi contained frothy matter. Heart much enlarged, and mitral and aortic valves incompetent to the water test. Masses of vegetations on mitral valve and in the aorta, causing stenosis; one leaflet of the aortic valve destroyed by vegetations. Pericardium thickened and contained a small amount of serous fluid, partially adherent to left pleura.[a] Abdomen: Omentum normal. Spleen enlarged and contained several large gummata, also a wide band of connective tissue constricting its middle; adhesion to tail of pancreas and left suprarenal capsule. Kidneys swollen and capsules tense, but not adherent. Considerable congestion of cortex and medulla; also several well-marked gummata in each organ. Right suprarenal in normal condition; left enlarged and adherent to tail of pancreas. Urinary bladder, organs of generation, rectum, and duodenum in normal condition. Stomach dilated and contained undigested food. Gall ducts normal. Liver much enlarged and in state of hypertrophic cirrhosis; several large gummata present. Tail of the pancreas adherent to spleen and left suprarenal capsule. The mesentery, small intestines, large intestines, and the great vessels normal. Atrophy of abdominal muscles on right side.

C. R.
J. O. C.

W. R.; age, 35; nativity, Illinois; admitted to United States Marine Hospital, Fort Stanton, N. Mex., February 14, 1900; died October 6, 1900.

History (condensed from clinical notes of medical officer in command at St. Louis, Mo.).—Family history negative. Personal history: Pneumonia in left side in 1884; also malaria. Syphilis in 1886. Chancroids twice. Present sickness began in June of 1899, from exposure to storm. Caught a heavy cold, and has had slight cough and expectoration ever since. Admitted to Marine Hospital, St. Louis, Mo., December 5, 1899. Anæmic appearance, flat chest, dyspnœa, con-

[a] The great vessels, nerve trunks, and diaphragm normal, except that the pleural layers of the latter were partly adherent.

[illegible] fremitus exaggerated on right side; many asthmatic rales; on left [illegible] weak, with a few rales. Decreased left resonance. Got worse [illegible] with chill, pain in loins, increase of rales on left side, and of pulse [illegible]. Better since the 13th. After many trials, tubercle bacilli found [illegible].

W. G. S.

[illegible] on arrival at Fort Stanton was as follows: Depression under [illegible] evident dyspnœa and weakness, a very sick man. Palpation: [illegible] greater in upper part of right lung. Percussion: No positive dull [illegible]. Auscultation: Numerous rales of various kinds all over the lungs, [illegible] weak; [illegible] valvular sounds seemed normal. February 18, [illegible] slight dullness in the left apex and also in axilla. [illegible] showed a few tubercle bacilli, not perfectly typical, however [illegible]. After getting over the fatigue of the journey he had [illegible] began to mend steadily in every way, up [illegible] sudden hemorrhage during [illegible] this patient was abundant and vivid. It was [illegible] tubercle bacilli. Such as were found were never [illegible] large numbers of leukocytes holding the pri[illegible] they may have been disintegrated tubercle bacilli or [illegible] same.

[illegible] Inspection of body: Dried blood over [illegible] contained dried blood. Rigor mortis present [illegible]. Thorax: Anterior mediastinum contained several enlarged [illegible]. Heart and pericardium normal. Lungs showed partial adhesions of [illegible] marked in upper portions, especially on right side. They [illegible] right being most involved [illegible] of a ruptured blood ves[illegible] hemorrhage. Many signs of [illegible] upper part, causing adhesions [illegible]. Kidneys: [illegible] bladder organs of gen[illegible] Mesenteric glands [illegible]

[illegible]

[illegible]

right ventricle empty; thickness of wall, 7 mm.; left ventricle contains dark clots; valves normal; thickness of wall, 1½ cm. Right lung: Weight, 1,410 grams; measurements, 26 by 22 by 8 cm.; color, reddish slate; tissue crepitant; numerous small tubercles present throughout the whole lung; no evidence of the tissue having broken down, nor does any pus exude on section. Left lung: Weight, 1,005 grams; measurements, 22 by 18 by 6 cm.; condition the same as the right lung. Spleen: Weight, 440 grams; measurements, 16 by 12 by 5.5 cm.; pulp very soft; color, reddish brown. Left kidney: Weight, 230 grams; cortical portion 7 cm. thick; color pale red. Right kidney: Weight, 220 grams; measurements, 14 by 9 by 4 cm.; cortical portion of a yellowish-red color, the yellow being in spots and streaks; thickness of cortical portion, 1 cm. The walls of the lower part of the ileum are filled with small tubercles. One round ulcer is present in the ileum, about 2.5 cm. from the mesenteric attachment and about 10 cm. from the cæcum; this ulcer has healed; it involves the muscular layer of the intestines only, the floor being formed by the peritoneal covering. This ulcer was about 1.5 cm. in diameter. Some of the mesenteric glands are indurated. Liver: Weight, 1,934 grams; measurements, 31 by 22 by 7 cm.; color on section of tissue reddish brown.

W. G. S.

K. H.; age, 27 years; nativity, Sweden; admitted to United States Marine Hospital, Fort Stanton, N. Mex., November 21, 1899; died August 6, 1900.

History (taken from clinical notes of the medical officer in command, Wilmington, N. C.).—Family history negative. Has had malaria and scarlet and yellow fevers as a child. Present attack began three years ago, after exposure to cold; bronchitis developed, and since then he has had a constant cough, varying in intensity, constantly losing weight. Has night sweats at rare intervals. Examination of chest: Bronchial breathing at both apices. Since admission to hospital there was at first marked improvement, but gradually the symptoms returned with increased severity, cough became worse, night sweats more frequent, dullness on percussion more marked; patient complaining of a dull pain, varying in intensity, first on one side and then on the other.

April 5, 1900.—The lungs were again examined, and showed increased roughened breathing at both apices; dullness more marked. Examination of sputum failed to reveal the tubercle bacilli. For five months past patient has been slowly growing worse, sometimes appearing much improved, but this succeeded by returns of the distressing symptoms. There has been no great loss in weight, and at the same time there has been little or no gain. The treatment throughout has consisted chiefly of cod-liver oil and creosote, with such symptomatic treatment as was necessary. Present condition: Has large deposit of tuberculous tissue in apex of left lung, and in posterior part of lower lobe on left side. There is considerable pleurisy at the apex. The right apex is also affected.

November 21, 1899.—Weight, 121.25 pounds. Inspection: Limited respiration on left side. Slight depression about 5 cm. below left clavicle. Palpation: Vocal fremitus increased over upper part of left lung posteriorly. Auscultation: Numerous râles heard over entire left lung and over right lung to third or fourth rib; râles most marked in left apex and just below left clavicle. Respiration normal in right lung below third rib. Heart: Pulmonary second sound much accentuated; otherwise heart is normal as regards position, size, and valves; pulse rapid. Sputum: Tubercle bacilli found in great numbers.

February 22.—Dullness in right apex also; râles same in both lungs as at previous examination, but now have a more pronounced clicking sound; dullness in lower part of left lung posteriorly from lower margin of thorax for about 7.5 cm. above. Complains of gurgling during respiration in middle lobe of right lung. The patient continued to have high temperatures, but even then he was always cheerful and hopeful of recovery. His appetite was fairly good most of the time.

December 18.—Patient was given another physical examination and the lesion seemed to be spreading, and both lungs showed foci of infection throughout. The latter part of March there was a marked improvement, and he was moved into a general ward. A few days after, he contracted tubercular pneumonia and nearly died. He gradually and slowly went down after this. The hemoglobin remained close to 75 per cent, and the blood count at 4,000,000 until a few weeks before his death, and then ran down rapidly. He responded nicely at all times to the diazo reaction. Had several slight hemorrhages from time to time; also had them before coming here. He died from exhaustion.

Necropsy (thirteen hours after death).—Body very much emaciated. Rigor mortis well marked. Skin yellowish; no bedsores. The thorax examined in the usual manner. The pleuræ and pericardium were firmly adherent to the anterior

[illegible] which restricted the excursion of the heart. Heart small all of its [illegible] valves normal pericardium firmly united to the pleurae, [illegible] were so firmly bound down that it necessitated the dissection of both [illegible] to remove them. The apex of the left lung was broken down, [illegible] a large irregular cavity from which there had been some oozing. The [illegible] the right apex was healing. The other portions of the lung tissue were [illegible] throughout with deposits, some of which were breaking down. The [illegible] glands were destroyed. The great vessels were normal. Spleen was very [illegible] were hyperæmic and larger than normal. Suprarenal capsules, [illegible] bladder, organs of generation, rectum, duodenum and stomach were [illegible] liver was much enlarged, extending over the left hypochondriac region; it [illegible] and the capsule could easily be removed. The gall bladder, gall [illegible] mesentery, small intestines, large intestines and great blood ves- [illegible] normal. The appendix was about 15 cm. long, was turned up, and [illegible] the under side of the liver.

[illegible]

[illegible] years; nativity, Russia; admitted to United States Marine Hos- [illegible] Md., July 13, 1891; died September 6, 1891.

[illegible] Family history entirely negative. Personal history: Temperate in all [illegible] to the onset of present disease. Present illness: Two years ago [illegible] left side, the bail entering between the seventh and eighth ribs in a [illegible] axillary border of the scapula. For eight days there was [illegible] expec- [illegible] Remained in hospital [illegible] months and twenty-eight days and [illegible] months in which to rest. Admitted to United States Marine Hos- [illegible] Mass., in April, 1891, because of weakness and its [illegible] At the end of two months and sixteen days [illegible] strong enough to work [illegible] at his own request, left upon [illegible] Baltimore was again [illegible] and applied for admission to hospital. The general condition [illegible] was [illegible]. Inspection shows a [illegible] chest [illegible] and intra- [illegible] Palpation [illegible] particularly marked [illegible] Auscultation: Crackling [illegible] and crackling rales distributed throughout [illegible] and anterior [illegible] areas on the left anterior chest wall [illegible] and about 1 inch in diameter. Examination of the sputum [illegible] in great numbers.

[illegible] Pulse extremely [illegible]. Respiration [illegible]. Moderate degree of [illegible]. Heart [illegible]. A [illegible] was found [illegible]. Weight [illegible]. The ventricular walls were [illegible] pulmonary and the aortic valves [illegible]. Liver and [illegible] normal. Respiration [illegible]. Nares, larynx, [illegible] normal. Both pleural cavities showed [illegible] adhesions [illegible] Pleural cavities contained [illegible]. Right side: Upper and middle lobes [illegible] Lower lobe [illegible] Left side: Upper [illegible] Weight [illegible]. Left side: Upper [illegible] were several [illegible] Liver normal. Weight [illegible] normal. Liver normal. Weight [illegible] Weight [illegible] grams. [illegible] weight [illegible] grams. [illegible] the pyloric and the [illegible] where varying [illegible] intestine and [illegible] appendix normal. Rectum [illegible] glands were enlarged [illegible] were normal. Weight [illegible]

[illegible]

ENTERIC FEVER.

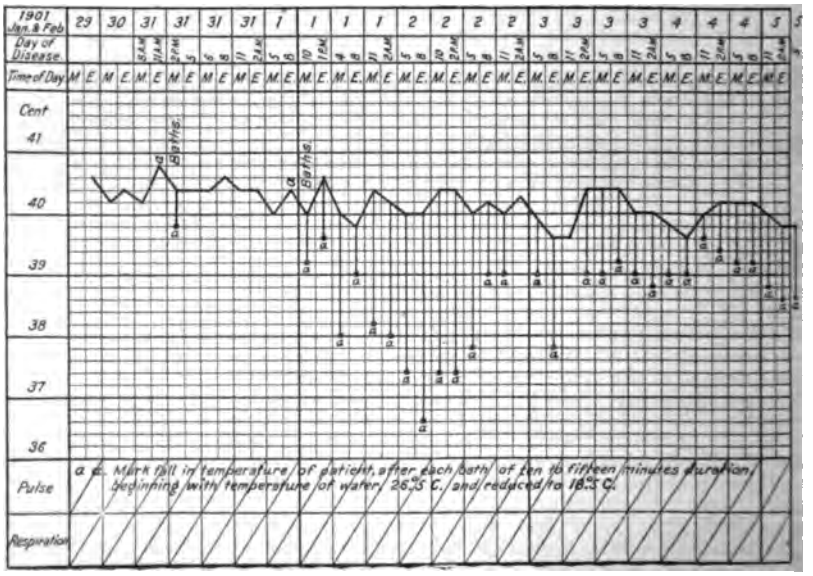
Inflammation of mucous membrane of larynx, acute catarrhal.

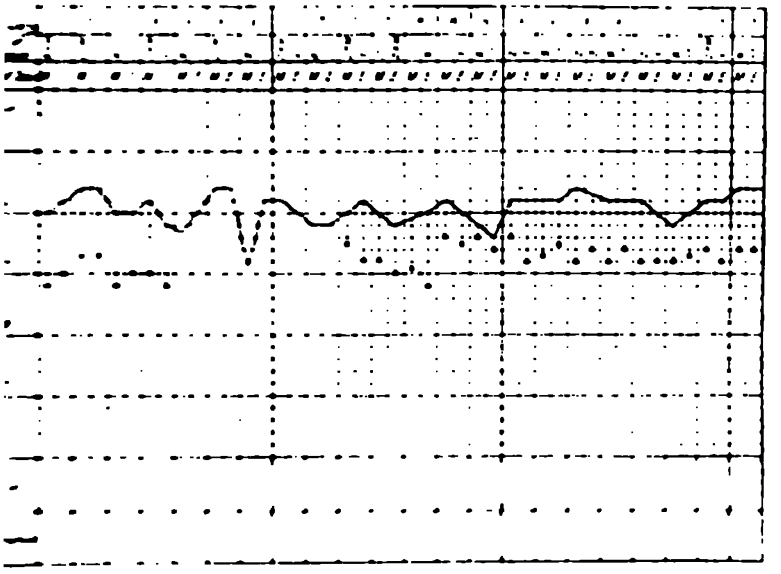
J. D.; age, 46 years; nativity, Sweden; admitted to United States Marine Hospital, port of San Francisco, Cal., January 29, 1901; died May 26, 1901.

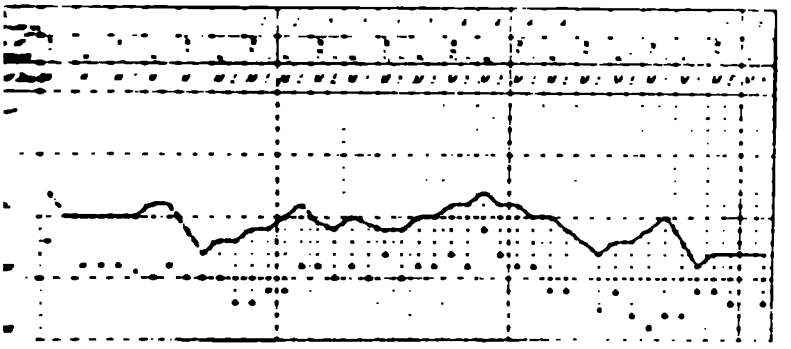
History.—On entering patient complained of pain in the abdomen, occasional chills, and inability to eat. Bowels regular. Examination showed rose spots on abdomen and lower thorax; moderate tympanites. Temperature, 40.6° C. The tympanites increased, masking the liver dullness. The temperature remained high, only being controlled by baths. Sordes were present. Bowels became open, moving three or four times a day. In the second week patient became somnolent, the heart's action became rapid, the sounds being muffled. At this time appeared a slight hacking cough. The diazo reaction was present in the urine. At the end of the second week ecchymoses appeared on the scrotum and thighs, and a purulent discharge came from the left ear. The signs cleared up, with the exception of the cough and a rapid, low-tension pulse. The hearing became better and the ear condition improved. Patient discharged, recovered from enteric fever, April 11, and readmitted for acute catarrhal inflammation of larynx, mucous membrane, April 12. The patient improved under inhalation treatment, the temperature becoming normal and breathing easier, though irritation of the larynx and vocal cords was still present. May 17, severe attack of dyspnœa and cardiac failure threatened. Improved until May 20, when he died suddenly of heart failure in spite of active stimulative treatment.

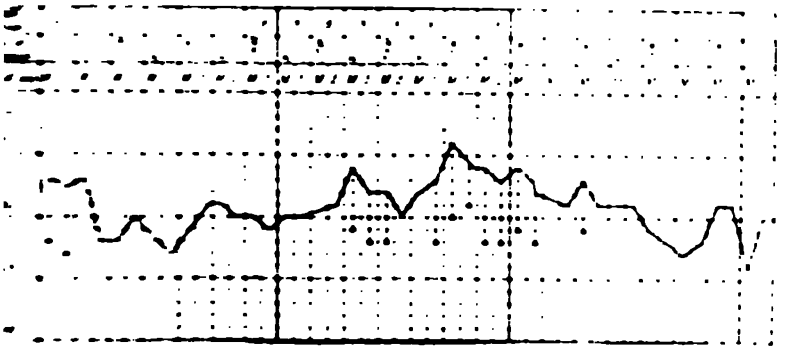
Treatment.—On admission for the first time patient was given a gentle mercurial purge with aromatics for two days, when treatment by means of cold baths, whisky, and strychnine was instituted. The other treatment was local, listerine for the mouth, boric-acid solution to wash out the ear, laxatives and stimulants as indicated. As the enteric symptoms subsided tonics—chloride of iron and Fowler's solution of arsenic—were given, alternating with quinine. At the time of the first discharge patient was on potassium iodide and protoiodide of mercury pills. He was also receiving a cough mixture containing morphine sulphate and ammonium chloride. During the second period treatment was continued with the addition of a tent over bed connected with a steam kettle for giving inhalation of turpentine vapor. At the time of death patient was on potassium iodide. Large doses of alcohol and strychnine were given in the hope of supporting the heart, but all efforts were unavailing.

U. S. Marine Hospital, port of San Francisco, Cal.
Name J. O.; age, 46 years; disease, enteric fever.

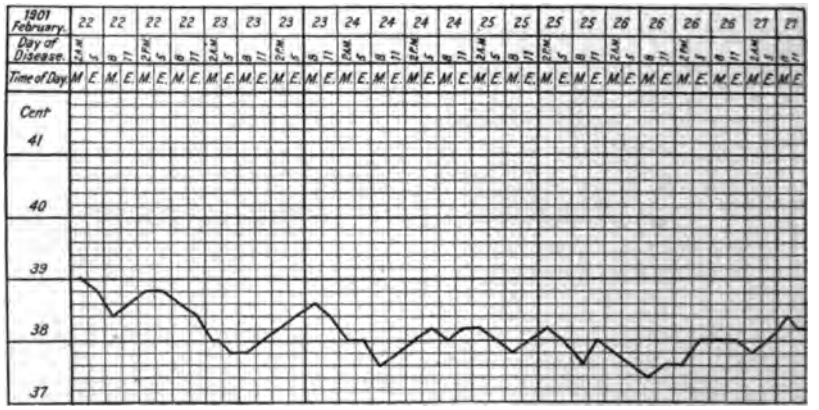


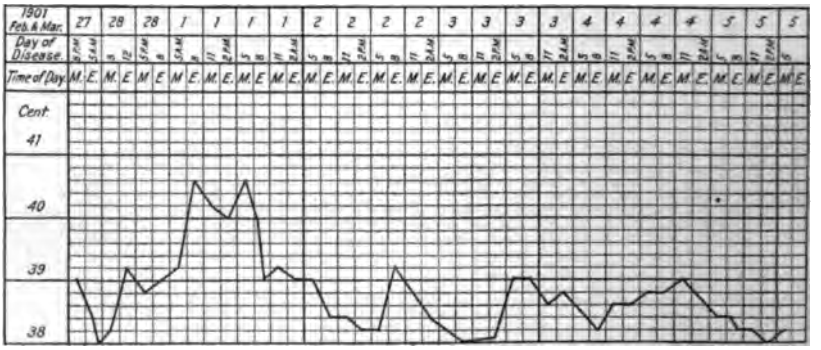


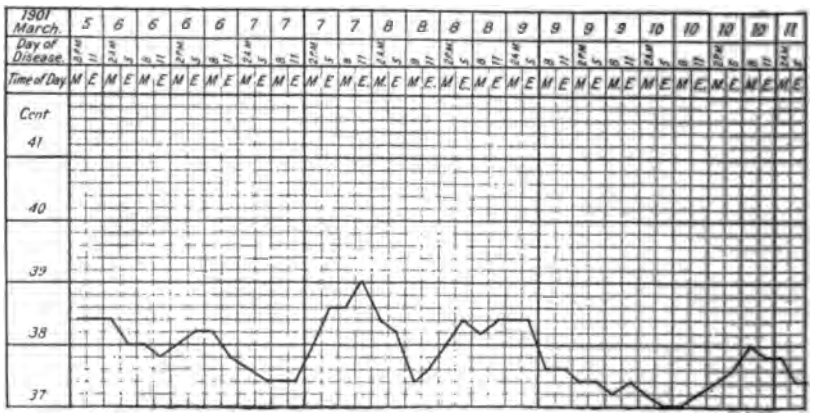


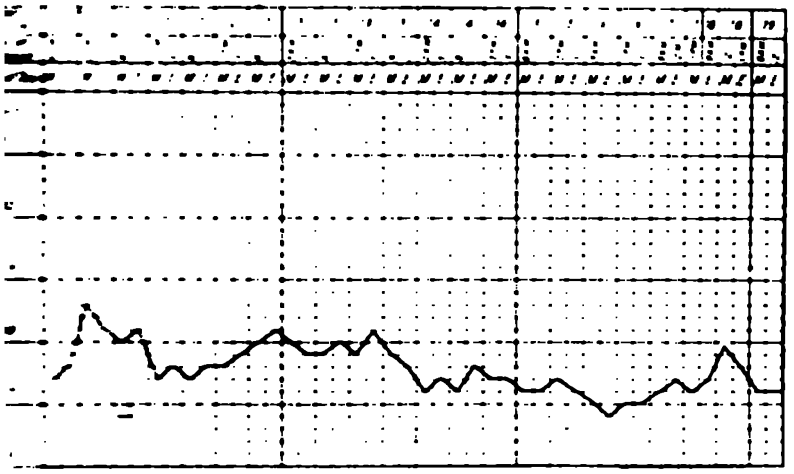


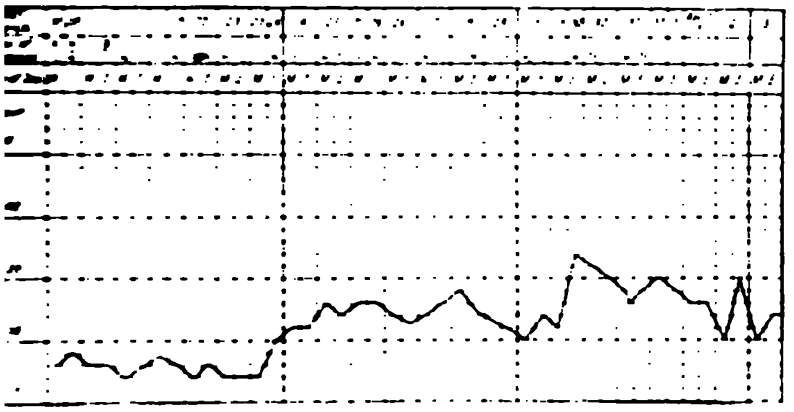
U. S. Marine Hospital, port of San Francisco, Cal.
Name, J. O.; age, 46 years; disease, enteric fever.

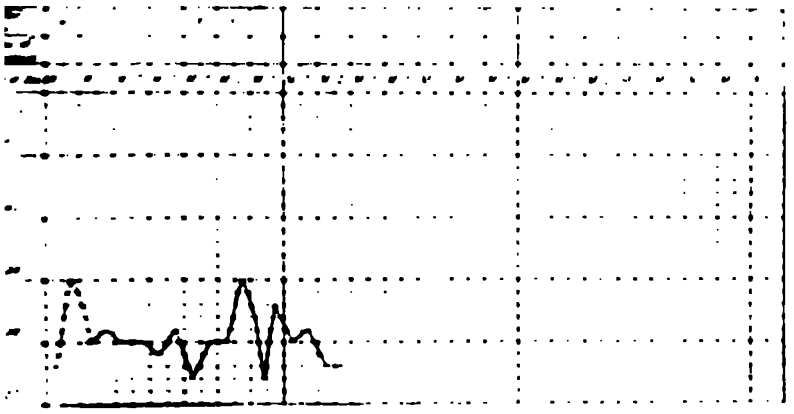




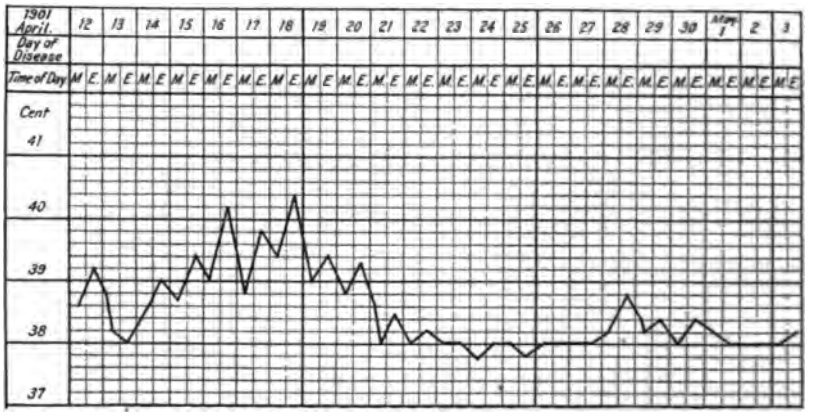








U. S. Marine Hospital, port of San Francisco, Cal.
Name, J. O.; age, 16 years; disease, inflamation of the mucus membrane of the larynx.



Necropsy (twenty-two hours after death).—The body is that of a muscular adult white male, much emaciated, and with a large skeletal development. Height, 1.775 meters; rigor mortis present; suggilations not well marked. Brain, 1,250 grams weight. Dura mater adherent and congested. Right lung, 480 grams weight; floated in water. Left lung, 470 grams weight; floated in water; slight adhesion at apex. Pericardium normal; tissue of great vessels infiltrated with fat. Heart, 350 grams weight. Muscle of left ventricle much paler than right and infiltrated with fat. Valves normal in appearance and competent by the hydrostatic test. Liver, 1,730 grams weight; congested. Spleen 205 grams weight; congested and friable. Stomach normal. Large intestine sacculated, rugæ obliterated; walls congested, thin in spots, and adherent, presenting all grades of healed ulcers. Small intestine: The ileum shows many healed ulcers. Kidneys, 440 grams weight, combined; congested. Larnyx: The vocal cords show fatty changes. There are ulcerating surfaces in the larnyx which are bathed in a thin purulent fluid. Other organs normal.

J. N. F.
C. W. V.
J. M. G.

Enteric fever, with complications.

H. P.; age, 24 years; nativity, Finland; admitted to United States Marine Hospital, Stapleton, N. Y., March 3, 1901.

Identification.—Light hair, gray eyes, initials H. E. P. and date 1877 tattooed on the left hand.

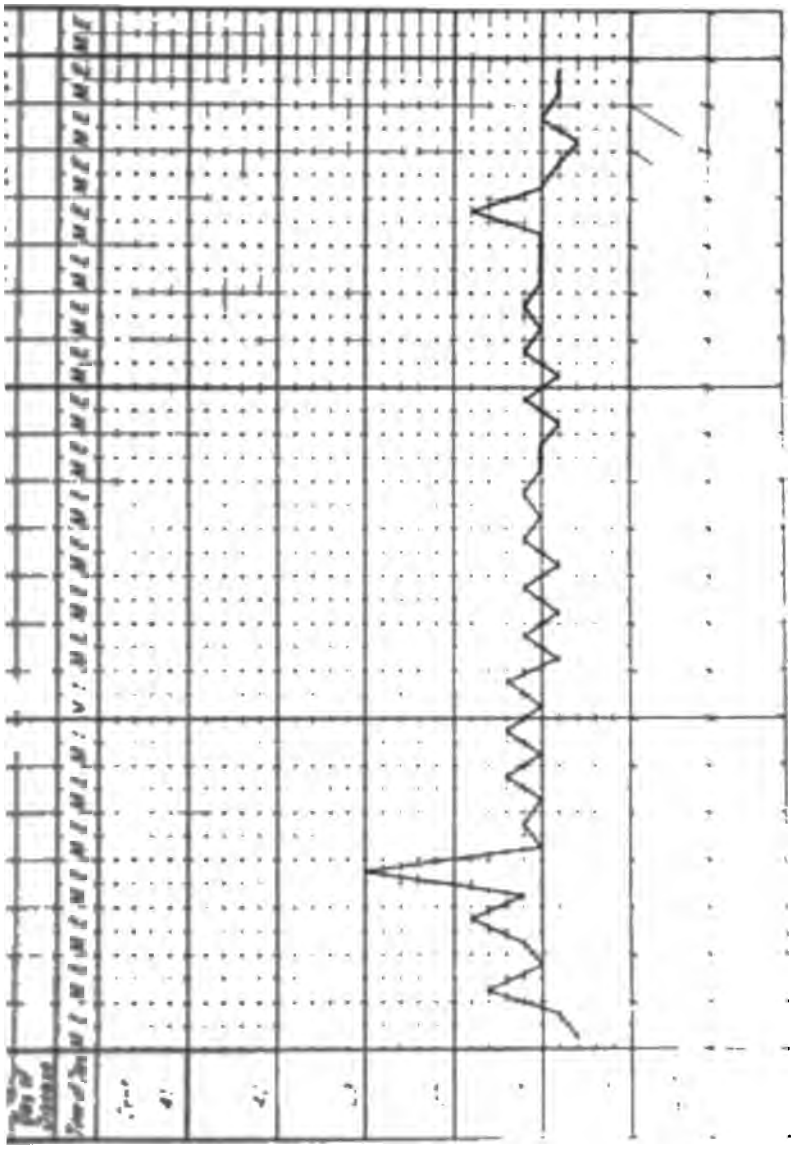
History.—Difficult to obtain with accuracy, as patient does not speak or understand English very well and is in a stupid condition as well. During the past nine months he has spent much time in hospitals, at Mobile, Boston, and Norfolk, suffering with rheumatism. Says that his present illness is of two or three weeks' duration, but that he has had a cough for a long time. Has been unable to work for five days. Complains chiefly of shortness of breath and cough. Only venereal trouble was soft chancer seven years ago.

Examination.—Patient presents the appearance of being seriously ill, is weak and very short of breath, and is mentally dull. Skin is dry, the cheeks flushed, and the pulse, although of fair volume and regular, is rapid. Over the entire chest there is harsh breathing with sonorous and sibilant râles, and moist, bubbling râles. The apex of the heart is displaced directly downward about an inch, and a loud systolic murmur is audible. There is slight abdominal tenderness, the spleen is enlarged to percussion, and the lymphatic glands generally are enlarged. Temperature, 39.4. No abdominal distention or gurgling.

Course of disease.—Chest symptoms the most prominent; excessive cough with the expectoration of blood-stained sputum. Bowels active, the movements being fluid and yellow. Sputum contains the diplococcus of pneumonia in abundance, and other cocci; tubercle bacilli not found.

[illegible] condition very poor. Pulse has responded to stimulation but is of [illegible] enough is now less prominent. Bowels active, the stools being [illegible] in character.

[illegible] Lung symptoms less marked. Typhoid condition obtains. Delirious [illegible] Temperature between 39° and 40°.



[illegible] Patient died at [illegible]

Treatment.—Stimulant throughout, whisky and strychnine. Ice and alcohol baths secured slight temporary reduction of temperature. Salol. Predigested foods.

Necropsy (twelve hours after death).—Rigor mortis and post-mortem lividity present. Eyes glazed and their pupils moderately and equally dilated. Some dried blood on the lips and teeth. Brain firm; weighs 1,420 grams. No gross changes visible externally. Puncta vasculosa very plainly marked on cut surface. On incising the abdominal wall, the subcutaneous fat was found to be scanty. Skeletal muscles dark colored. No gross abnormalities of position of viscera noted. Pericardium adherent throughout its serous surfaces, the adhesions being apparently of old formation. Heart weighs 330 grams. Both ventricles contain dark fluid blood and ante-mortem clots, and both are moderately dilated. Mitral orifice admits three fingers to the second joint, tricuspid orifice two. The valve flaps of the mitral and aortic valves are thickened, especially the posterior mitral flap. Myocardium is of about normal thickness, of dark red color, and fairly firm. Left pleural sac is free from adhesions or unusual amount of fluid. Left lung weighs 600 grams. Apex of upper lobe is in a state of red hepatization, sinks in water, and is friable. The lower part is deeply congested, but floats and crepitates. There is an unusual amount of anthracotic deposit throughout the lung. Right pleural sac presents many old adhesions. Right lung weighs 540 grams, floats, crepitates, and presents on cut section black pigmentary deposits. Mediastinal glands enlarged. Great vessels normal. Omentum contains only very little fat. Spleen weighs 550 grams, is much enlarged, and its pulp is dark red and friable. Left kidney weighs 225 grams, capsule stripped easily, cut surface pale, but markings are distinct. Right kidney weighs 195 grams, and its cut surface is still paler than that of the left. Intestines generally distended. On opening the ileum Peyer's patches were found swollen and injected and a few small ones were ulcerated. Stomach appeared normal. Mesenteric glands much enlarged. Liver weighed 2,150 grams, and was abnormally friable. Bladder empty and contracted. Pancreas apparently normal.

G. W. S.
A. C. S.

New growth, malignant, glandular carcinoma.

J. F.: age, 52 years; nativity, New York; white; admitted to the United States Marine Hospital, St. Louis, Mo., November 29, 1900, and died December 26, 1900.

History.—Patient stated that he had had dyspepsia for two years, and that he had been feeling especially bad for the past six days. He complained of nausea and pain in his stomach. He had eaten very little for two days, as he became sick soon after taking food in his stomach and usually vomited it. He said he had a chancre twenty years ago, which was followed by an enlargement of the glands in the groin, sore throat, and an eruption on his body.

Physical examination.—Cervical glands enlarged; slight dullness on percussion over both lungs; the respiratory sounds are roughened, but no rales are present. A blowing murmur is heard over the apex of the heart. A tumor is felt extending from 1 inch below the xiphoid cartilage to the umbilicus. This tumor is hard and irregular in outline, and the pulsations of the aorta are transmitted through it. The spleen is slightly enlarged. The vomited matter is of a yellowish-green color, and has an acid reaction; no free or combined hydrochloric acid is present; no cells resembling cancer cells can be found by the microscope. On November 16, at 2.30 a. m., the patient vomited coffee-colored matter after an attack of severe pain. The case was thought to be one of cancer of the pylorus or duodenum, and an operation was advised, but the patient would not consent. He continued to grow worse every day, living chiefly on buttermilk, malted milk, beer, etc., and when these were not retained by the stomach he was fed by rectal enemata. He became greatly emaciated, and died of exhaustion at 4 p. m. December 26, 1900.

Necropsy (twenty hours after death).—Height 170 cm., abdomen boat shaped, abdominal walls 0.5 cm. thick; the muscular tissue is of a bright red color, stomach greatly dilated; gall bladder full; a large, hard swelling is present in the epigastric region. Brain: Weight, 1,350 grams; tissue normal. Heart: Weight, 249 grams; measurements, 7 by 8 by 5 cm.; thickness of wall of right ventricle, 5 mm.; of left ventricle, 1½ cm.; mitral valve insufficient. Right lung bound down to chest wall at lower portion; weight, 835 grams; measurements, 29 by 19 by 8 cm.; color, grayish red; numerous nodules, some hard and some filled with creamy matter, found throughout its substance, being especially abundant at the apex. Left lung bound down posteriorly; weight, 555 grams; measurements, 27 by 17 by 6 cm.; tissue in same condition as other lung. Spleen: Weight, 65 grams; measurements, 11 by 8 cm.; color on section, reddish brown streaked with

Left kidney: Weight 160 grams; measurements, 12 by 8 by 4 cm.; cortical [illegible] cm. thick; color light brown; pyramids hardly perceptible. Right [illegible]: Weight 140 grams; measurements, 13 by 8 by 4 cm.; tissue in same condition as [illegible] other kidney. Mesenteric glands enlarged and some filled with yellow matter. The pyloric opening of the stomach is patulous, but the lower [illegible] of the duodenum and the head of the pancreas are bound down tightly to [illegible] and vertebral column by dense fibrous tissue. The walls of the intestines are thickened, but the lumen of the canal, although greatly contracted, is open. A microscopical section was made of the tumor, and it was found to be composed of dense fibrous stroma with spaces here and there filled with [illegible].

W. G. S.

[illegible]

[illegible] nativity Norway; admitted to the United States Marine Hospital [illegible] 1900; died October [illegible] 1900.

[illegible] The history obtained from relatives set forth that patient had been [illegible] a month, and that immediately before that time he fell from a height of [illegible] and struck on his head. On admission the patient was in a precarious [illegible]. The bodily condition was that of extreme emaciation, and mentally [illegible] very [illegible]. The pulse was 94 per minute and very feeble; respiration [illegible] and the temperature was 36° C. Tongue dry and covered with [illegible] deposit. [illegible] was feeble and mentality very slow. Patient said he [illegible] suffering from diarrhea for several weeks, but that bowels had not [illegible] the past two days. An enema administered was followed by the escape [illegible] large amount of dark offensive semifluid material resembling changed [illegible].

The general aspect was that of a neglected case of typhoid. Patient [illegible] have been starved. The subcutaneous fat was entirely absorbed and [illegible] of the normal elasticity. The hands and feet were cold, [illegible] the rim of pelvis, clavicles, and the bony framework generally [illegible] prominent. There were deep depressions above clavicles. [illegible] covered with sordes. On the anterior [illegible] of the body and arms was an eruption under the skin much resembling [illegible] stages of purpura. The pressure of the stethoscope left a blanched [illegible], which faded very slowly. There existed a [illegible] state of [illegible]. Chest examination revealed [illegible] heart sounds normal [illegible] very feeble. The [illegible] contained [illegible] crystals [illegible]. The [illegible] was [illegible] and stimulants [illegible] frequently repeated [illegible] patient gave [illegible] he went into [illegible] from which he was [illegible] only by the hypodermic use of [illegible] of the muscles and heat applied [illegible] the surface of the [illegible]. He [illegible] the following afternoon [illegible] pulseless and comatose. [illegible] was [illegible].

[illegible] normal salt solution being [illegible] As this operation was [illegible] felt better and asked for something to eat [illegible] the same [illegible] the wrist after it had been [illegible].

[illegible]

[illegible] Notwithstanding [illegible] the patient died [illegible] exhausted and the effect [illegible] temperature.

[illegible] extremely emaciated. [illegible] body. Postmortem [illegible]

[illegible] Right attached to the chest wall [illegible] Left lung also adherent [illegible] congested, the right being [illegible] mottled on the surface [illegible] contained a small amount of dark [illegible] Left normal. Weight [illegible] grams [illegible] weight

160 grams. Spleen small: interstitial network white and prominent: weight of organ 150 grams. Pancreas normal: weight 80 grams. Stomach empty: cavity enlarged, lining dark and congested. Intestines contained yellow, pea-soup material in small amount: the appendix had a small, firm concretion in the apex. Throughout the ilium were beautifully healed typhoid patches, presenting the characteristic shaven-beard appearance. The recovery was so nearly perfect that the ulcers left scarcely a macroscopic trace of their former existence.

F. J. T.
H. W. S.

Enteric fever.

L. T.: age, 32 years; nativity, Norway; admitted to the United States Marine Hospital, Stapleton, Staten Island, August 10, 1900; died September 13, 1900.

History.—Family history negative; past history negative; present history, complained for last week of pain in head, dizziness; felt chilly and feverish at times, sweats considerably, feels weak, and can not sleep. Morning temperature, 39.6°; pulse, 104; respiration, 36. Evening temperature, 41°; pulse, 104; respiration, 28; had typhoid stool. Treatment: Milk diet, turpentine stupes to abdomen, tub bath if temperature rises above 39, aromatic spirits ammonia 15 c. c. every three hours. Temperature evening of August 11, 1900, 37; following morning rose to 38.6, and that evening went up to 40.6, and for the following day varied between 39 and 41, with evening rise.

August 12.—Temperature normal in morning and for following two mornings, with evening rises to 40.

August 14.—Rose-colored spots on abdomen.

August 21.—Temperature has ranged from 39 to 40, being considerably reduced after tub baths. Pulse ranged from 100 to 120 and was weak and compressible. No diarrhea, bowels kept open with calomel; general condition fair; losing flesh steadily; sordes on teeth and lips.

August 24.—Has crepitant râles over right lower lobe and dullness on percussion. Diplococcus found in sputum. Cough and expectoration; ℞. Pill opii et plumbi, two every four hours.

August 25.—Bronchial breathing over lower lobe. Discontinue lead and opium pills; temperature rose to 41°, pulse to 140, respiration to 40; strychnine sulphate 0.002 t. i. d.

August 26.—Temperature ranged from 39° to 41°; pulse from 120 to 140; respiration to 40. Strychnine sulphate, 0.002 t. i. d.

August 27.—Temperature ranged from 39° to 41°; pulse from 120 to 140; respiration from 30 to 40. Stopped medicine, except strychnine; continued baths and milk diet. Passed large quantity of clotted blood yesterday; ice applied to abdomen, and pill opii et plumbi, one every four hours, prescribed.

August 30.—Patient weak; temperature last three days ranged from 38° to 39°; pulse from 108 to 140; respiration from 26 to 28; 7 p. m. had severe chill; temperature, 41.5°; pulse very rapid; strychnine and whisky administered; patient wrapped in sheet wrung out of ice water.

August 31.—Patient weak, but bright and feeling better; temperature in morning, 37.2°; pulse, 128; respiration, 34; had another chill toward evening; temperature rose to 40.6°; is semicomatose; blood examined for plasmodia; none found. Acid solution quinine 1, hypodermically and repeated; strychnine hypodermically administered.

September 1.—Patient rational; temperature in morning, 41°; pulse, 160; respiration, 48.

September 3.—Patient much better; temperature ranges from 38° to 39°; pulse from 100 to 112; no delirium; bowels move daily.

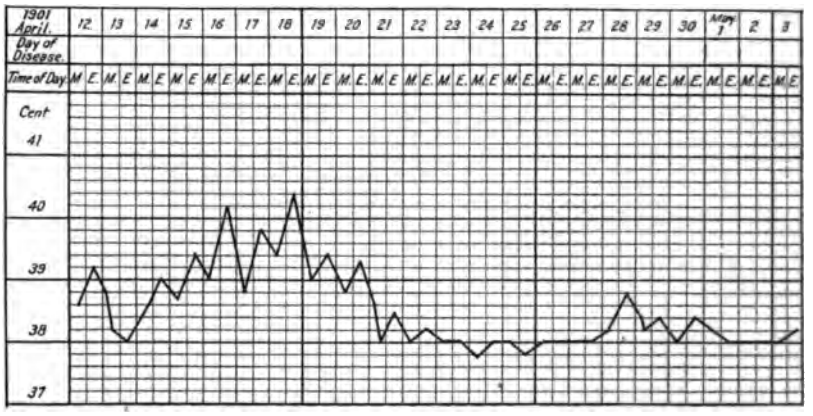
September 10.—Patient doing fairly well; temperature varies from 38° to 39°; lung symptoms all cleared up; inclined to be constipated; calomel given to keep bowels open; no chills or delirium.

September 12.—Solution of euthymol ordered as mouth wash; tongue heavily coated, whitish. ℞. Acid, hydrochloric, dil. gtts. 15, t. i. d.; milk to be predigested. ℞. Strychnine sulphate, 0.002, every two hours, alternating with spirits frumenti, which he has been taking for past two weeks.

September 12, p. m.—Temperature rose to 40°. He complains of cough and pain in side; respiration rapid and harsh; has friction sounds over lower portion of left side; pulse rapid and feeble; sponge bath given and stimulations increased, but he gradually sank, and died at 12.30 p. m. September 13, 1900.

Necropsy (twenty-four hours after death).—Body that of a male, apparently about 30 years of age. Considerable emaciation; rigor mortis only slight. Sug-

U. S. Marine Hospital, port of San Francisco, Cal.
Name, J. O.; age, 46 years; disease, inflamation of the mucus membrane of the larynx.



Necropsy (twenty-two hours after death).—The body is that of a muscular adult white male, much emaciated, and with a large skeletal development. Height. 1.775 meters; rigor mortis present; suggilations not well marked. Brain, 1,250 grams weight. Dura mater adherent and congested. Right lung, 480 grams weight; floated in water. Left lung. 470 grams weight; floated in water; slight adhesion at apex. Pericardium normal; tissue of great vessels infiltrated with fat. Heart. 350 grams weight. Muscle of left ventricle much paler than right and infiltrated with fat. Valves normal in appearance and competent by the hydrostatic test. Liver, 1,730 grams weight; congested. Spleen 205 grams weight; congested and friable. Stomach normal. Large intestine sacculated, rugæ obliterated; walls congested, thin in spots, and adherent, presenting all grades of healed ulcers. Small intestine: The ileum shows many healed ulcers. Kidneys, 440 grams weight, combined; congested. Larnyx: The vocal cords show fatty changes. There are ulcerating surfaces in the larnyx which are bathed in a thin purulent fluid. Other organs normal.

J. N. F.
C. W. V.
J. M. G.

Enteric fever, with complications.

H. P.; age, 24 years; nativity, Finland; admitted to United States Marine Hospital, Stapleton, N. Y., March 3, 1901.

Identification.—Light hair, gray eyes, initials H. E. P. and date 1877 tattooed on the left hand.

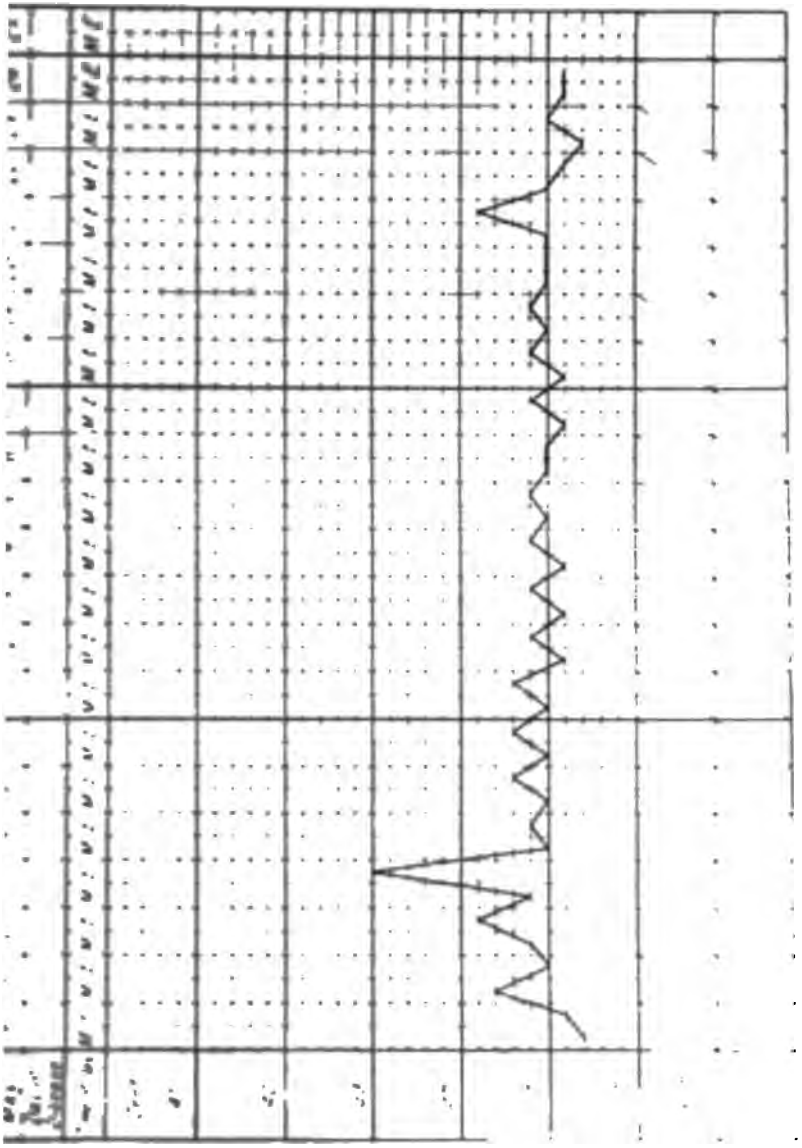
History.—Difficult to obtain with accuracy, as patient does not speak or understand English very well and is in a stupid condition as well. During the past nine months he has spent much time in hospitals, at Mobile, Boston, and Norfolk, suffering with rheumatism. Says that his present illness is of two or three weeks' duration, but that he has had a cough for a long time. Has been unable to work for five days. Complains chiefly of shortness of breath and cough. Only venereal trouble was soft chancer seven years ago.

Examination.—Patient presents the appearance of being seriously ill, is weak and very short of breath, and is mentally dull. Skin is dry, the cheeks flushed, and the pulse, although of fair volume and regular, is rapid. Over the entire chest there is harsh breathing with sonorous and sibilant râles, and moist, bubbling râles. The apex of the heart is displaced directly downward about an inch, and a loud systolic murmur is audible. There is slight abdominal tenderness, the spleen is enlarged to percussion, and the lymphatic glands generally are enlarged. Temperature, 39.4. No abdominal distention or gurgling.

Course of disease.—Chest symptoms the most prominent; excessive cough with the expectoration of blood-stained sputum. Bowels active, the movements being fluid and yellow. Sputum contains the diplococcus of pneumonia in abundance, and other cocci; tubercle bacilli not found.

[illegible] very poor. Pulse has responded to stimulation [illegible] is now less prominent. Bowels [illegible] stools [illegible] for

[illegible] symptoms less marked. Typhoid condition [illegible] Delirious [illegible] Temperature between [illegible] and [illegible]



[illegible]

Treatment.—Stimulant throughout, whisky and strychnine. Ice and alcohol baths secured slight temporary reduction of temperature. Salol. Predigested foods.

Necropsy (twelve hours after death).—Rigor mortis and post-mortem lividity present. Eyes glazed and their pupils moderately and equally dilated. Some dried blood on the lips and teeth. Brain firm; weighs 1,420 grams. No gross changes visible externally. Puncta vasculosa very plainly marked on cut surface. On incising the abdominal wall, the subcutaneous fat was found to be scanty. Skeletal muscles dark colored. No gross abnormalities of position of viscera noted. Pericardium adherent throughout its serous surfaces, the adhesions being apparently of old formation. Heart weighs 330 grams. Both ventricles contain dark fluid blood and ante-mortem clots, and both are moderately dilated. Mitral orifice admits three fingers to the second joint, tricuspid orifice two. The valve flaps of the mitral and aortic valves are thickened, especially the posterior mitral flap. Myocardium is of about normal thickness, of dark red color, and fairly firm. Left pleural sac is free from adhesions or unusual amount of fluid. Left lung weighs 600 grams. Apex of upper lobe is in a state of red hepatization, sinks in water, and is friable. The lower part is deeply congested, but floats and crepitates. There is an unusual amount of anthracotic deposit throughout the lung. Right pleural sac presents many old adhesions. Right lung weighs 540 grams, floats, crepitates, and presents on cut section black pigmentary deposits. Mediastinal glands enlarged. Great vessels normal. Omentum contains only very little fat. Spleen weighs 550 grams, is much enlarged, and its pulp is dark red and friable. Left kidney weighs 225 grams, capsule stripped easily, cut surface pale, but markings are distinct. Right kidney weighs 195 grams, and its cut surface is still paler than that of the left. Intestines generally distended. On opening the ileum Peyer's patches were found swollen and injected and a few small ones were ulcerated. Stomach appeared normal. Mesenteric glands much enlarged. Liver weighed 2,150 grams, and was abnormally friable. Bladder empty and contracted. Pancreas apparently normal.

G. W. S.
A. C. S.

New growth, malignant, glandular carcinoma.

J. F.; age, 52 years; nativity, New York; white; admitted to the United States Marine Hospital, St. Louis, Mo., November 29, 1900, and died December 26, 1900.

History.—Patient stated that he had had dyspepsia for two years, and that he had been feeling especially bad for the past six days. He complained of nausea and pain in his stomach. He had eaten very little for two days, as he became sick soon after taking food in his stomach and usually vomited it. He said he had a chancre twenty years ago, which was followed by an enlargement of the glands in the groin, sore throat, and an eruption on his body.

Physical examination.—Cervical glands enlarged; slight dullness on percussion over both lungs; the respiratory sounds are roughened, but no rales are present. A blowing murmur is heard over the apex of the heart. A tumor is felt extending from 1 inch below the xiphoid cartilage to the umbilicus. This tumor is hard and irregular in outline, and the pulsations of the aorta are transmitted through it. The spleen is slightly enlarged. The vomited matter is of a yellowish-green color, and has an acid reaction; no free or combined hydrochloric acid is present; no cells resembling cancer cells can be found by the microscope. On November 16, at 2:30 a. m., the patient vomited coffee-colored matter after an attack of severe pain. The case was thought to be one of cancer of the pylorus or duodenum, and an operation was advised, but the patient would not consent. He continued to grow worse every day, living chiefly on buttermilk, malted milk, beer, etc., and when these were not retained by the stomach he was fed by rectal enemata. He became greatly emaciated, and died of exhaustion at 4 p. m. December 26, 1900.

Necropsy (twenty hours after death).—Height 170 cm., abdomen boat shaped, abdominal walls 0.5 cm. thick; the muscular tissue is of a bright red color, stomach greatly dilated; gall bladder full; a large, hard swelling is present in the epigastric region. Brain: Weight, 1,350 grams; tissue normal. Heart: Weight, 249 grams; measurements, 7 by 8 by 5 cm.; thickness of wall of right ventricle, 5 mm.; of left ventricle, 1½ cm.; mitral valve insufficient. Right lung bound down to chest wall at lower portion; weight, 835 grams; measurements, 29 by 19 by 8 cm.; color, grayish red; numerous nodules, some hard and some filled with creamy matter, found throughout its substance, being especially abundant at the apex. Left lung bound down posteriorly; weight, 555 grams; measurements, 27 by 17 by 6 cm.; tissue in same condition as other lung. Spleen: Weight, 65 grams; measurements, 11 by 8 cm.; color on section, reddish brown streaked with

left kidney. Weight, 160 grams; measurements, 12 by 8 by 4 cm.; cortex 5 mm. thick, color light brown, pyramids hardly perceptible. Right weight 145 grams; measurements, 13 by 8 by 4 cm.; tissue in same condition as other kidney. Mesenteric glands enlarged and some filled with yellow matter. The pyloric opening of the stomach is patulous, but the lower part of the duodenum and the head of the pancreas are bound down tightly to the and vertebral column by dense fibrous tissue. The walls of the intestine thickened, but the lumen of the canal, although greatly contracted, is [illegible]. A microscopical section was made of the tumor, and it was found to consist of dense fibrous stroma with spaces here and there filled with cells.

W. G. S.

Enteroptosis; asthenia.

[illegible] nativity Norway; admitted to the United States Marine Hospital [illegible], October 7, 1900; died October 9, 1900.

The history obtained from relatives set forth that patient had been [illegible] month and that immediately before that time he fell from a height of [illegible] and struck on his head. On admission the patient was in a precarious condition. The bodily condition was that of extreme emaciation, and mentally very cloudy. The pulse was 94 per minute and very feeble; respiration [illegible] and the temperature was 36° C. Tongue dry and covered with a heavy deposit; voice was feeble and mental acts very slow. Patient said he was suffering from diarrhea for several weeks but that bowels had not for the past two days. An enema administered was followed by three ounces of dark offensive, semifluid material resembling changed blood. General aspect was that of a neglected case of typhoid. Patient had been starved. The subcutaneous fat was entirely absorbed and [illegible] of the normal elasticity. The hands and feet were cold, retracted; the ribs, pelvis, clavicles and the bony framework generally very prominent. There were [illegible] the abdomen was retracted and the [illegible]. On the anterior [illegible] the body and arms was an eruption similar to the [illegible] resembling stages of prurigo. The pressure of the finger left a blanched [illegible] the skin, which faded very slowly. There was [illegible] of the nervous system. Chest examination [illegible] the lungs [illegible] the heart [illegible]. The urine [illegible] pale, [illegible] turbid, contained [illegible] albumin, [illegible] crystals [illegible]. The [illegible] was fixed [illegible] and [illegible] the patient gave no [illegible]. [illegible] from which he was rescued [illegible] the [illegible] of the [illegible] and [illegible] the [illegible]. He remained [illegible] the [illegible] [illegible] and [illegible]. [illegible] was [illegible] and [illegible] saline solution being [illegible] [illegible]. As this operation was [illegible] the patient [illegible] better and asked for something [illegible] the same [illegible] the water after it had been [illegible] [illegible] and facial expression [illegible] [illegible] [illegible] Notwithstanding [illegible] the patient died [illegible] exhausted and [illegible] [illegible] was [illegible] temperature.

[illegible] extremely emaciated [illegible] body. Post-mortem [illegible] M[illegible] [illegible] right [illegible] to the [illegible] [illegible]

[illegible] adherent [illegible] the right [illegible] [illegible] the [illegible] [illegible] a small amount of [illegible] Left normal; weight [illegible] grams; [illegible] and [illegible] [illegible] wound

160 grams. Spleen small; interstitial network white and prominent; weight of organ 150 grams. Pancreas normal; weight 80 grams. Stomach empty; cavity enlarged, lining dark and congested. Intestines contained yellow, pea-soup material in small amount; the appendix had a small, firm concretion in the apex. Throughout the ilium were beautifully healed typhoid patches, presenting the characteristic shaven-beard appearance. The recovery was so nearly perfect that the ulcers left scarcely a macroscopic trace of their former existence.

F. J. T.
H. W. S.

Enteric fever.

L. T.: age, 32 years; nativity, Norway; admitted to the United States Marine Hospital, Stapleton, Staten Island, August 10, 1900; died September 13, 1900.

History.—Family history negative; past history negative; present history, complained for last week of pain in head, dizziness; felt chilly and feverish at times, sweats considerably, feels weak, and can not sleep. Morning temperature, 39.6°; pulse, 104; respiration, 36. Evening temperature, 41°; pulse, 104; respiration, 28; had typhoid stool. Treatment: Milk diet, turpentine stupes to abdomen, tub bath if temperature rises above 39, aromatic spirits ammonia 15 c. c. every three hours. Temperature evening of August 11, 1900, 37; following morning rose to 38.6, and that evening went up to 40.6, and for the following day varied between 39 and 41, with evening rise.

August 12.—Temperature normal in morning and for following two mornings, with evening rises to 40.

August 14.—Rose-colored spots on abdomen.

August 21.—Temperature has ranged from 39 to 40, being considerably reduced after tub baths. Pulse ranged from 100 to 120 and was weak and compressible. No diarrhea, bowels kept open with calomel; general condition fair; losing flesh steadily; sordes on teeth and lips.

August 21.—Has crepitant râles over right lower lobe and dullness on percussion. Diplococcus found in sputum. Cough and expectoration; ℞. Pill opii et plumbi, two every four hours.

August 22.—Bronchial breathing over lower lobe. Discontinue lead and opium pills; temperature rose to 41°, pulse to 140, respiration to 40; strychnine sulphate 0.002 t. i. d.

August 25.—Temperature ranged from 39° to 41°; pulse from 120 to 140; respiration to 40. Strychnine sulphate, 0.002 t. i. d.

August 27.—Temperature ranged from 39° to 41°; pulse from 120 to 140; respiration from 30 to 40. Stopped medicine, except strychnine; continued baths and milk diet. Passed large quantity of clotted blood yesterday; ice applied to abdomen, and pill opii et plumbi, one every four hours, prescribed.

August 30.—Patient weak; temperature last three days ranged from 38° to 39°; pulse from 108 to 140; respiration from 26 to 28; 7 p. m. had severe chill; temperature, 41.5°; pulse very rapid; strychnine and whisky administered; patient wrapped in sheet wrung out of ice water.

August 31.—Patient weak, but bright and feeling better; temperature in morning, 37.2°; pulse, 128; respiration, 34; had another chill toward evening; temperature rose to 40.6°; is semicomatose; blood examined for plasmodia; none found. Acid solution quinine 1, hypodermically and repeated; strychnine hypodermically administered.

September 1.—Patient rational; temperature in morning, 41°; pulse, 160; respiration, 48.

September 3.—Patient much better; temperature ranges from 38° to 39°; pulse from 100 to 112; no delirium; bowels move daily.

September 10.—Patient doing fairly well; temperature varies from 38° to 39°; lung symptoms all cleared up; inclined to be constipated; calomel given to keep bowels open; no chills or delirium.

September 12.—Solution of euthymol ordered as mouth wash; tongue heavily coated, whitish. ℞. Acid, hydrochloric, dil. gtts. 15, t. i. d.; milk to be predigested. ℞. Strychnine sulphate, 0.002, every two hours, alternating with spirits frumenti, which he has been taking for past two weeks.

September 12, p. m.—Temperature rose to 40°. He complains of cough and pain in side; respiration rapid and harsh; has friction sounds over lower portion of left side; pulse rapid and feeble; sponge bath given and stimulations increased, but he gradually sank, and died at 12.30 p. m. September 13, 1900.

Necropsy (twenty-four hours after death).—Body that of a male, apparently about 30 years of age. Considerable emaciation; rigor mortis only slight. Sug-

gillations in dependent portions of body. Right thigh and leg discolored blue on all surfaces from subcutaneous suggillations. Considerable subcutaneous fat in abdominal and thoracic wall. Skeletal muscles bright red and wasted. Anterior mediastinum normal. Thymus remains not found. Pericardium normal in position, appearance of surface, and amount and character of contents. Left ventricle contracted and empty. Right ventricle contains fluid blood and chicken fat clots. Left auricle, aorta, and pulmonary artery contain chicken fat clot. Heart weighs [illegible] grams. Aortic valve efficient to water test. Heart muscle pale, firm, and of normal thickness, valves apparently normal. Aorta presents some calcareous deposits. Left pleura firmly bound to chest walls by adhesions. Left lung weighs [illegible] grams, floats and crepitates. Dependent parts congested. Cut section shows marked oedema and congestion. Upper lobe slightly oedematous. Right pleura also adhered to lung and chest wall. Right lung weighs [illegible] grams. Floats and crepitates. Cut section normal. Great vessels of thorax normal except for calcareous degenerated plaques in the aorta. Diaphragm normal. Spleen normally placed, weighs [illegible] grams. Appearance, external and on cut section, normal. Left kidney normally placed, capsule normally lent, weighs [illegible] grams. Cut surface pale and yellow markings somewhat indistinct. Right kidney resembles the left. Liver weighs 1,6[illegible] grams. Cut surface pale and of a yellowish tinge, consistence somewhat friable. Pancreas normal. Great vessels of abdomen normal. Rectum contains formed feces; mucosa with that of the entire large intestine markedly congested. Ileum mucosa congested, lower 2 feet presents ulcers varying from one eighth to three fourths inch in diameter. Brain somewhat congested, the meninges slightly increased in amount. Bladder, urethra, prostate, and testicles normal.

J. M. K.
G. W. S.

[illegible] H. [illegible] years, native, United States of America, admitted to the surgical ward of St. Mary's Hospital, Milwaukee, Wis., November [illegible], died November [illegible].

[illegible] Ha[illegible] [illegible] This illness began with a [illegible] and was followed by [illegible] and generation. He complained of [illegible] but that there was [illegible] the abdomen, the feces [illegible] Temperature [illegible] [illegible] and [illegible] Patient died [illegible] Immediately was painless at least.

No [illegible] apparently [illegible] years of age. [illegible] marked. [illegible] to the employes [illegible] a small amount of normal [illegible] in the right side. Weight [illegible] contained about [illegible] flabby and retracted [illegible] greatly distended with [illegible] were to weight of a portion [illegible] the peritoneal aspect [illegible] raised and about the size of a [illegible] the character of [illegible] was [illegible] size and shape. [illegible] having been thrown [illegible] normal to be enlarged [illegible] enlarged polyps and [illegible] of the gastro-[illegible] were distended with [illegible] normal in size and consistence.

[illegible]

M. H.; white; nativity, Illinois; age, 22 years; admitted to United States Marine Hospital, Detroit, August 1, 1900; died September 3, 1900.

History.—Patient stated that he had been sick for two weeks before his admission to the hospital and gave a history of headache, dizziness, anorexia, and diarrhea. His tongue was thickly coated, broad, and flabby; spleen enlarged and tender; gurgling and tenderness in right iliac region; abdomen distended and tympanitic. The diagnosis of enteric fever was made, and subsequently confirmed by symptoms, and the "Widal reaction."

The case progressed favorably until August 19, when symptoms of congestion of right lung appeared. On August 24 copious hemorrhages from the bowel occurred, the patient voiding clots for two days, and becoming very weak and emaciated. From this he failed rapidly, with persistent high temperature until September 3, when he died.

Necropsy (eleven hours after death).—Body of medium-sized man, much emaciated, with no special marks. Rigor mortis pronounced. Calvarium removed: dura anæmic; brain slightly congested, but presented no discernible lesions; weight, 1,520 grams. Chest and abdomen opened. The right lung was slightly adherent to parietes, very much congested, and contained a number of caseous tubercles in upper lobe; weight, 950 grams. The left lung was greatly congested; weight, 720 grams. The heart contained ante-mortem clots in both sides, otherwise appeared normal; weight, 390 grams. The liver was pale, but otherwise normal in appearance; weight, 1,990 grams. Spleen normal; weight, 340 grams. Both kidneys normal; weight of right, 220 grams; left, 240 grams. Stomach greatly distended with flatus and curdled milk. Intestines: The jejunum and ileum showed much glandular inflammation with numerous ulcerations. The colon was constricted about 20 cm. above the sigmoid flexure, probably the result of an old dysentery. There was a general involvement of the intestinal and omental glands, many of them being in an advanced state of ulceration. The other organs were normal.

E. K. S.
J. G.

F. von T.; white; age, 22; nativity, Holland; admitted to the United States Marine Hospital, Baltimore, Md., June 21, 1900; died July 24, 1900. Diagnosis, enteric fever.

Family history.—Good.

Previous history.—Habits good; never had any venereal disease; had malarial fever two years ago. Present illness began with a chill on June 18, previous to which he had not felt well for five or six days. Following the chill he had fever, but no sweat; felt quite sick up to the 20th of June, when he had another severe chill, after which he felt very weak and dizzy. Was admitted the following day, June 21. On admission the patient's general condition was good; bowels constipated; abdomen distended with gas; complained of headache; temperature, 39.6°. The next morning the temperature was 37.8°, and ran an irregular course throughout the rest of the illness. Eruption absent; abdominal tenderness not marked at any time during the course of illness; characteristic typhoid stools. July 18 patient complained of slight pain in both knee joints, which, however, soon disappeared. July 22, at 9 a. m., both arms were noticed to be swollen in the region of the elbow joints and associated with constant and severe pain and tenderness, being more pronounced in the right arm. The swelling increased very rapidly throughout the day and succeeding night, and on the following morning it extended from the shoulder to the hand and was œdematous in character. The next day, July 24, the right arm was swollen to about three times its normal size; left arm was also greatly enlarged. At 12 o'clock of same day pronounced gaseous distension of the abdomen developed, followed by rapid and feeble heart action and shallow and hurried respiration. Patient died at 3.45 p. m., July 24, 1900.

Necropsy (eighteen hours after death).—Post-mortem lividity marked in dependent parts; rigor mortis disappearing; body emaciated; pupils equal and dilated. Pericardial sac opened; contained 110 c. c. of straw-colored fluid. Lungs: Right weighed 535 grams, left one 430 grams. Both lungs showed hypostatic congestion. Base of left lung adherent to chest wall posteriorly and to the diaphragm. Abdomen distended with gas; stomach empty, normal in appearance; lower part of small intestine highly inflamed, presenting numerous points of ulcerations, one of which perforated all the coats of the intestine about 15 cm. from the ileocæcal valve. No fecal matter had escaped into the abdominal cavity, nor was there any evidence of hemorrhage. Mesenteric glands were enlarged. Vermiform appendix normal. Large intestine empty and in nowise involved. Liver: Chocolate color, somewhat engorged; in other respects normal; weighed 1,975

[illegible]

[illegible]

[illegible]

INFLAMMA[illegible]

November 28. A small abscess was found, lightly confined by peritoneal adhesions. The appendix was curled on itself like a snail shell and bound together by strong adhesions, and was perforated near the tip. A spot on the cæcum within the abscess area looked very dark and almost ready to form a slough. The appendix was removed and the wound was drained with iodoform gauze. After operation the patient was nervous and restless and inclined to vomiting, but progressed fairly well for the first three days.

December 1.—The bowels moved well for the first time, and with the aid of an enema appeared to be thoroughly unloaded. The morning of December 2 the dressings were changed and the strands of gauze drainage renewed, all except one. There was only a slight purulent discharge in the dressings and the patient's condition was satisfactory at this time. In the evening of the same day he was taken suddenly with persistent vomiting, which soon became fecal in character, and the abdomen again became distended and tender. A high enema was given, the dressings were changed again and morphine administered, and the patient became easy until early the following morning, when the vomiting was renewed and his condition rapidly became hopeless. He died at 8.50 o'clock in the evening.

Necropsy (eighteen hours after death).—Body well nourished and muscular. Scars, apparently the result of a wet cupping, on the chest below the right clavicle. Rigor mortis. Slight post-mortem lividity. Operation wound about 8 cm. long in abdominal wall at outer border of right rectus muscle in iliac region, partly closed with sutures. No pus flowed from wound, but a small amount was in the dressings. Bones of skull very thin. Small amount of serum in the meninges of the brain. Sinuses and blood vessels moderately full of blood. The brain weighed 1,575 grams; externally and on section it presented no unusual appearances. There was a moderate amount of clear serum in the pericardial sac. The membrane was smooth and bright. The apex of the heart extended slightly to the left of the nipple in the fifth interspace. The left ventricle was contracted and empty, the right relaxed and full of dark-liquid blood. Small buff clots were in the aorta and pulmonary artery and adherent to the walls of the ventricles. The aortic valve withstood the hydrostatic test; the pulmonary artery was very relaxed and the valve would not close to the test. The valve segments in both appeared sound. The mitral orifice barely admitted the tips of two fingers. The tricuspid orifice admitted four fingers. The wall of the right ventricle was estimated 6 mm. thick and the left 20 mm. The heart weighed 385 grams. The left lung was nonadherent; it only collapsed slightly on opening the chest, and it pitted on pressure externally. The tissue crepitated and floated in water, and no consolidated tissue was found; the lung weighed 545 grams. The right lung was nonadherent and scarcely collapsed at all on opening the chest; it pitted on pressure externally; the tissue crepitated and floated in water; it was filled with dark blood, but free from any consolidation; the lung weighed 675 grams. The abdomen bulged and the intestines were enormously distended with gas. The omentum overlay the intestines and was lightly adherent to them, and a small amount of fibrinous exudate bound the coils of intestines lightly together immediately beneath the omentum and deeper in the right lumbar and iliac regions. Even at the site of the operation on the appendix the adhesions were not firm. There was no pus in the peritoneal sac, and, except for the slight fibrinous adhesions at the places named, the membrane was smooth and bright, though the intestinal walls were discolored and livid. There was a small amount of clear serum in the dependent parts of the cavity. The colon had no mesentery in the ascending or descending portions. The last portion of the ilium, to a point near the cæcum, had slipped far down into the pelvis, turning upon itself and forming a volvulus which constricted the gut between the mesentery and the brim of the pelvis at a distance of about 8 cm. from the cæcum and caused acute obstruction. The gut was held in this position by the fibrinous adhesions. At the point of constriction the wall of the gut was very dark colored in its entire thickness. The gut beyond the constriction was largely collapsed; above the constriction it was distended. The stump of the appendix was in process of healing, as was also the portion of the wound in the abdominal wall which had been sutured. The spleen was very small and weighed 98 grams. The left kidney weighed 230 grams; the right 235 grams. The capsules stripped readily. The tissue was mottled, the left being darker than the right, and the natural markings were distinct. The liver weighed 2,022 grams, and had nothing unusual in its appearance. The bladder contained a very small quantity of urine.

A. C. S.
G. W. S.

SEPTICÆMIA

[illegible] nativity Scotland; last employed on ship *Frances*; admitted [illegible] States Marine Hospital Stapleton, Staten Island, November 7, 1900; [illegible]

The patient presented himself at the hospital with a large hernia in [illegible] which he supported with difficulty with a truss. His general and physical vigor were not good, but nothing definitely wrong could [illegible] evidence of moderate chronic bronchitis and old, dry pleurisy. [illegible] arrived from a five months' sailing voyage around the Horn, and [illegible] a great part of the voyage, being confined to his bunk over [illegible] with a fever. The nature of this fever could not be told. He had [illegible] after arrival in port. He was kept in hospital several days [illegible]. The operation for radical cure of the hernia was done under [illegible]. The following day his temperature rose to 39 and he devel[illegible] cough, and I feared pneumonia threatened. The cough subsided [illegible] but the fever continued high, without chills or sweats or [illegible] vitality seemed to fail. The wound was uncovered and [illegible] had been a great deal of extravasation of blood in the soft [illegible] suppuration was apparent in the wound. He was kept [illegible] means of stimulants and careful nursing, but died with [illegible] and edema of the lungs. I am convinced that in this [illegible] extravasation of blood were due to defective coagulation, and [illegible] was due to auto-infection, either from purulent sputum in the [illegible] or possibly from germs of the foregoing fever lingering in the [illegible] before the operation, but had it toward [illegible]

[illegible] —Rigor mortis. General nourishment [illegible] distended, skin over same tense and discolored with [illegible] ground and serum. Extrava[illegible] wound. There was no pus in the [illegible] elevated more below the [illegible] There was no serous effusion in [illegible] The brain weighed [illegible] grams. Heart. The pericardial sac [illegible] serum. The heart was in systole. The left [illegible] almost two fingers, the right one three [illegible] and pulmonary valves held water. The arterial [illegible] were [illegible] The heart weighed [illegible] grams. Lungs. The [illegible] adhesions. The lung [illegible] water. [illegible] pressure externally. [illegible] was [illegible] blood in the upper [illegible] hard [illegible] tissue [illegible] The [illegible] was [illegible] the pleural cavity, the [illegible] The lung tissue in the upper [illegible] was [illegible] the middle [illegible] Weight of lung [illegible] The [illegible] was [illegible] and [illegible] in the slightest [illegible] part. There was a very small quantity of clear [illegible] There was no extravasation [illegible] the air-bearing [illegible] upward [illegible] weighed [illegible] grams. Except [illegible] at base it [illegible] The [illegible] was pale. The [illegible] The [illegible] weighed [illegible] grams and had the same appear[illegible] The [illegible] weighed [illegible] grams and had the usual appear[illegible] Gall bladder empty. The [illegible] contained [illegible] Pancreas [illegible] The [illegible] was [illegible] The [illegible] presented no [illegible] The intestines were distended with gas.

[illegible]

APPENDICITIS (FULMINATING VARIETY) WITH EXTENSIVE SUB-PERITONEAL SUPPURATION.

H. F.; age, 21; was admitted into the marine ward of St. Mary's Infirmary June 4, 1901, complaining of symptoms pointing to appendicitis.

He gave a history of no previous illness of any moment, but stated that on June 1, 1901, while at sea he was seized with a severe pain of a colicky character, at first fairly generally distributed over the lower abdomen, but after twenty-four hours becoming localized at the umbilicus. He had had diarrhea and occasional vomiting. On admission at 11 a. m. the pain and tenderness were fairly definitely localized over the appendix, where also there was a very definite sense of resistance. His temperature was 101° F. There was also a distinct hardening and tenderness in the middle line from the pubes to the umbilicus. Operation at 4 p. m. on day of admission. The appendix was readily reached, being situated in front of the colon, and it, with the caput cæcum coli, was entirely extraperitoneal. It appeared gangrenous at the middle and was surrounded by a curious black gelatinous material which I have never before seen in any laparotomy. The appendix was removed and the wound drained. His temperature fell after the operation, but though there was no discharge in twenty-four hours from the operation his pulse got progressively weaker. In thirty-six hours after the operation there was a profuse discharge. An attempt was made to establish free drainage, but it was felt that there was no hope, as the patient's pulse had become very weak. He died at 10 a. m. on the second day after the operation.

Necropsy (two hours after death).—Body of a well-nourished, muscular, young man; post-mortem lividity well marked; rigidity not yet apparent; body warm; height, 5 feet 8½ inches. A small boil is noted over front of left knee. Pupils moderately dilated, equal. Face exceedingly livid. Surgical wound, 3 inches in length, over appendical region, shows the tissue in a blue, almost gangrenous, condition. Crepitation of the abdominal wall on the right just beneath the margin of the ribs outside the rectus muscle. Abdominal wall: Fat of the abdominal wall has a greenish appearance. Below the umbilicus, on opening the sheath of the rectus muscle, the whole sheath is greenish and infiltrated. The posterior surface of the rectus is covered with greenish lymph. On opening the space of Retzius a large quantity of pus escaped, from which cultures are made. It is noted at the time of operation that a sense of resistance was given in this region, though no pain was complained of. The whole abdominal wall in the subperitoneal tissue below the umbilicus seems one continuous suppurating cavity. Omentum, etc.: On opening the peritoneum the omentum is found adherent to the intestines. The subperitoneal suppurating process has spread half way up between the umbilicus and the xyphoid cartilage, and in several places it appears as though the suppuration had penetrated from outside; but this is doubtful, as there is a suppurative process behind the omentum in these sites. The omentum is deeply congested, especially down in the pelvis. It is adherent to the small intestines all over, and occasionally the adhesions are of a yellow character. Along the line of the transverse colon and between the layers of the omentum are similar yellow deposits. The liver is adherent to the omentum, hepatic flexure of the colon, gall bladder, and pyloric end of the stomach, as well as to the lesser omentum, by a similar exudation of a yellowish character. Old adhesions, thoroughly vascularized, exist between the underside of the gall bladder and omentum. The peritoneum on the posterior wall of the abdomen is extensively infiltrated with small suppurative areas. The small intestines, especially where in contact with the pelvic peritoneum or omentum, show areas of deep congestion. The ileum, at distances of approximately 6 and 18 inches from the ileocæcal junction, and the sigmoid flexure are bound down by pale yellow recent adhesions. The appendix, which was found in operation to lie in front of the cæcum, has been entirely removed (was completely extraperitoneal). Its base is gangrenous. Pus extends behind the cæcum in the peritoneal tissue up as high as the liver and on to the under surface of the diaphragm. It passes down into the pelvis and runs along the ureter, crosses over in front of the aorta, and spreads along the left ureter and inferior mesenteric vessels. It appears to have spread up along the mesentery of the rectum and other structures, passing down into the subperitoneal tissues. Right lung: Old pleuritic adhesions over the apex, hypostatic congestion of lower lobe, otherwise same as left organ. Spleen deeply congested, hemorrhagic in small points; considerable hæmic pigment in granules scattered about. Psoas muscle also contains pus, although the right muscle seems to have escaped. The pyogenic process is more advanced in pelvis behind the rectum and around the bladder than anywhere else, the whole tissue in front of the bladder being full of thick yellow pus. Stomach and small intestines appear healthy, except for lesions above mentioned. Large intestine: Caput cæcum coli is somewhat injected, but otherwise appears normal, except as above stated.

The opening of the appendix is slightly reddened and closed by the catgut ligature about the mucosa. In the colon, especially at the splenic flexure, the solitary glands are very prominent, and the bowel has a greyish look. Rest of large intestine shows nothing abnormal. Spleen is enlarged, soft, deeply congested; Malpighian bodies prominent. Liver. Gall bladder is distended with bile. The liver is pale yellow in color and deeply congested; otherwise normal. The bile is extremely thick from mucus and abundant. Left kidney: A dark black gelatinous material surrounds the kidney, the organ is deeply congested, otherwise appears normal. Right kidney. Surrounded by fairly healthy tissue; otherwise similar to left organ, small. Pancreas appears normal. Chest: The pericardium contains no fluid. Heart: The right auricle is full of dark blood-clot. The ventricles and left auricle are empty. Aortic and pulmonary valves are competent (water test). Heart appears normal. Left lung. Lower lobe deeply congested (hypostatic), otherwise normal. Liver deeply congested, cells cloudy, swelling, but little pigment. Colon slight thickening of mucosa from round-cell infiltration; no new growth of peritoneal layer of section. Lungs deeply congested with interstitial hemorrhage, some hemorrhage into air spaces, hemic and external pigmentation. Heart not markedly involved, a few fibers swollen and granular; moderate congestion. Aorta not altered.

Cultures made from the region of the appendix, the pus in the space of Retzius, and the thick gelatinous tissue around the left kidney showed almost pure growths of a bacillus which does not correspond with the bacillus of any other with which the writer or the pathologists in the State university are familiar. Experiments are being made with a view to their careful description and classification.

W. K.

PERITONITIS FOLLOWING LAPAROTOMY

L. L., aged [illegible] years, Lafayette, Sweden, was admitted to the United States Marine Hospital, Chelsea, Mass., May 22 and died May 30, 1900.

[illegible] A diagnosis of retro-peritoneal growth, probably adenoma, having been arrived at, a laparotomy was performed and two large growths enucleated from the abdominal and pelvic region. There was considerable hemorrhage which was arrested by gauze packing, and normal salt solution was injected. Patient rested very well, although there was considerable shock and a temperature of [illegible]. A good deal of nausea was experienced for which cracked ice and [illegible] was ordered.

May [illegible]. At this time patient had made satisfactory progress, which he began to suffer from nausea and vomiting. He could retain no milk at times, the quantity of milk was small and one-third lime water.

There be no evidence of abdominal distention, a rectal tube was introduced as high as possible from which passed considerable gas. An enema was given at the same time but was not returned. Teaspoonful doses of magnesium sulphate were then ordered every hour for three hours.

May [illegible]. Patient in very poor condition. Bandage being very tight, it was decided to renew dressing. Wound was in an excellent condition. Abdomen distended with gas but not tender on pressure, nor did the patient complain of pain. The only evidence of peritonitis was the distention and the generally collapsed appearance of the patient. Vomiting continued at intervals.

[illegible] *twelve hours after death.* Eyes and cheeks sunken, [illegible] very small pulse, and [illegible] very marked. The incision is situated [illegible] beginning at a point [illegible] extending upward to a point [illegible]. The [illegible] about [illegible]. In the lower corner of wound there was an [illegible] about [illegible] of pus extending down into the [illegible] and showing signs of [illegible]. [illegible] about [illegible] of turbid fluid. Heart weighs [illegible] valves normal. Right lung weighs [illegible] of hypostatic congestion. Left lung weighs [illegible] congestion and was adherent on its diaphragmatic surface [illegible] opening wound the intestines were found adherent [illegible] and greatly distended with gas. One loop is adherent [illegible] serous layer of the small intestines in the region of the wound [illegible] numerous adhesions are formed. Peritoneum [illegible] in the left iliac region. Abdominal cavity is filled with [illegible] are signs of a general peritonitis. Gall bladder [illegible] is normal. Liver weighs 1,900 grams and slightly congested, otherwise normal. Left kidney weighs 90 grams and was filled with [illegible] Right

kidney weighs 260 grams and was normal. Spleen weighs 260 grams; was bound down by adhesions; capsule was adherent. Bladder was friable and contained about 50 c. c. of turbid fluid, containing cheesy masses similar to those found in the left kidney. Brain weighs 1,490 grams and is normal.

F. I.

Wound of parietes of abdomen, penetrating, incised, peritonitis.

W. T. (colored); age, 31; nativity, Virginia; admitted to the United States Marine Hospital, Evansville, Ind., February 3, 1901; died February 7, 1901.

Clinical history.—On admission (7.15 p. m.) he stated that at 11 o'clock a. m. on the day before he had received a stab wound of the abdomen while on the boat up Green River near Bowling Green, Ky. He received medical attention at once. Patient was anæsthetized; wound investigated; no injury to intestines found; wound sutured and dressing applied. On examining the patient a wound about 1 cm. long was found just to the left and a little above the navel. Patient seemed to be in good condition; no fever; not much pain, and that just around wound. He could handle himself pretty well. Pulse was good, and patient's heart and lungs were normal. Wound was dressed. The next day he felt better. Pain and tenderness was less. That night he vomited a little, and at 9.30 p. m. he had a free voluntary action of the bowels. This made him feel much better. He took milk, beef tea, and a little whisky during the 5th.

Next morning he took a turn for the worse; abdomen enlarged and became tense, and pain increased. He vomited considerable. Two enemata produced free action of bowels, which relieved him for only a short time. Arrangements were made for a laparotomy, which was begun at 6 p. m. on February 6. An incision about 13 cm. long was made, with its center at the site of the original stab wound. Some dark-colored blood was found in the abdominal cavity. The intestines just under the wound were bound together by adhesions. A small pocket of thin pus was found about 5 cm. down. This and the blood were carefully mopped out, and then the cavity was flushed with a decinormal salt solution at 37° C. No point of bleeding was found, and there was no wound of the intestines. The abdominal cavity was given another flushing with the salt solution, and the wound closed with deep and superficial sutures, two gauze drainage strips being left in at the lowest end of the wound. Patient was put to bed, and hot-water bags put about him and stimulants by hypodermic method given. He suffered a little from shock. The next morning he was not so well. He grew worse and died at 12 o'clock noon February 7, 1901.

Necropsy (twenty-two hours after death).—Body that of a well-developed negro; nutrition good; pupils dilated; rigor mortis marked. Heart: Weight, 367 grams; normal. Right lung: Weight, 655 grams; congested, otherwise normal. Left lung: Weight, 520 grams; congested, otherwise normal. Liver: Weight, 1,920 grams; normal. Spleen: Weight, 140 grams; normal. Right kidney: Weight, 170 grams; normal. Left kidney: Weight, 190 grams; normal. Pancreas: Weight, 125 grams; normal. In the abdominal cavity was found some thin, dark-colored fluid (remains of normal salt solution). There had been no more hemorrhage. The original hemorrhage had in all probability been a secondary one which came from a wounded vessel in the stab wound of the abdominal parietes. Numerous adhesions (new) bound the intestines together. Most of them were about site of stab wound. No more pus was discovered. Intestines were carefully examined for a puncture, but none was found. Omentum was congested and showed a wound; other organs and tissues normal. Case was one of infection of peritoneum by point of knife carrying infection deep among the intestines.

J. H. O.

Cirrhosis of liver.

T. S.; male; white; age, 38; admitted to hospital July 26, 1900; died July 30, 1900.

History.—Patient had been a hard drinker several years prior to his illness. After five weeks' sickness, with rapidly increasing œdema of the extremities, he entered the hospital. At that time there was great general anasarca; the abdomen was somewhat distended with fluid; eyeballs protruded; conjunctivæ week injected; ecchymoses were present in eyelids and neck. His pulse was wear; heart sounds weak; expiratory murmur prolonged. Liver could not be palpated; percussion borders vague. In spite of vigorous stimulants and eliminative treatment, the anasarca increased; ecchymosis quickly appeared in both inguinal regions, extending rapidly along right side, and on July 30 patient died.

Necropsy (eleven hours after death).—Rigor mortis slight; great œdema of extremities, which ooze quantities of pure yellow fluid upon puncture with knife

[illegible]

[illegible]

M. H.; white; nativity, Illinois; age, 22 years; admitted to United States Marine Hospital, Detroit, August 1, 1900; died September 3, 1900.

History.—Patient stated that he had been sick for two weeks before his admission to the hospital and gave a history of headache, dizziness, anorexia, and diarrhea. His tongue was thickly coated, broad, and flabby; spleen enlarged and tender; gurgling and tenderness in right iliac region; abdomen distended and tympanitic. The diagnosis of enteric fever was made, and subsequently confirmed by symptoms, and the "Widal reaction."

The case progressed favorably until August 19, when symptoms of congestion of right lung appeared. On August 24 copious hemorrhages from the bowel occurred, the patient voiding clots for two days, and becoming very weak and emaciated. From this he failed rapidly, with persistent high temperature until September 3, when he died.

Necropsy (eleven hours after death).—Body of medium-sized man, much emaciated, with no special marks. Rigor mortis pronounced. Calvarium removed; dura anæmic; brain slightly congested, but presented no discernible lesions; weight, 1,520 grams. Chest and abdomen opened. The right lung was slightly adherent to parietes, very much congested, and contained a number of caseous tubercles in upper lobe; weight, 950 grams. The left lung was greatly congested; weight, 720 grams. The heart contained ante-mortem clots in both sides, otherwise appeared normal; weight, 390 grams. The liver was pale, but otherwise normal in appearance; weight, 1,990 grams. Spleen normal; weight, 340 grams. Both kidneys normal; weight of right, 220 grams; left, 240 grams. Stomach greatly distended with flatus and curdled milk. Intestines: The jejunum and ileum showed much glandular inflammation with numerous ulcerations. The colon was constricted about 20 cm. above the sigmoid flexure, probably the result of an old dysentery. There was a general involvement of the intestinal and omental glands, many of them being in an advanced state of ulceration. The other organs were normal.

E. K. S.
J. G.

F. von T.; white; age, 22; nativity, Holland; admitted to the United States Marine Hospital, Baltimore, Md., June 21, 1900; died July 24, 1900. Diagnosis, enteric fever.

Family history.—Good.

Previous history.—Habits good; never had any venereal disease; had malarial fever two years ago. Present illness began with a chill on June 18, previous to which he had not felt well for five or six days. Following the chill he had fever, but no sweat; felt quite sick up to the 20th of June, when he had another severe chill, after which he felt very weak and dizzy. Was admitted the following day, June 21. On admission the patient's general condition was good; bowels constipated; abdomen distended with gas; complained of headache; temperature, 39.6°. The next morning the temperature was 37.8°, and ran an irregular course throughout the rest of the illness. Eruption absent; abdominal tenderness not marked at any time during the course of illness; characteristic typhoid stools. July 18 patient complained of slight pain in both knee joints, which, however, soon disappeared. July 22, at 9 a. m., both arms were noticed to be swollen in the region of the elbow joints and associated with constant and severe pain and tenderness, being more pronounced in the right arm. The swelling increased very rapidly throughout the day and succeeding night, and on the following morning it extended from the shoulder to the hand and was œdematous in character. The next day, July 24, the right arm was swollen to about three times its normal size; left arm was also greatly enlarged. At 12 o'clock of same day pronounced gaseous distension of the abdomen developed, followed by rapid and feeble heart action and shallow and hurried respiration. Patient died at 3.45 p. m., July 24, 1900.

Necropsy (eighteen hours after death).—Post-mortem lividity marked in dependent parts; rigor mortis disappearing; body emaciated; pupils equal and dilated. Pericardial sac opened; contained 110 c. c. of straw-colored fluid. Lungs: Right weighed 535 grams, left one 430 grams. Both lungs showed hypostatic congestion. Base of left lung adherent to chest wall posteriorly and to the diaphragm. Abdomen distended with gas; stomach empty, normal in appearance; lower part of small intestine highly inflamed, presenting numerous points of ulcerations, one of which perforated all the coats of the intestine about 15 cm. from the ileocæcal valve. No fecal matter had escaped into the abdominal cavity, nor was there any evidence of hemorrhage. Mesenteric glands were enlarged. Vermiform appendix normal. Large intestine empty and in nowise involved. Liver: Chocolate color, somewhat engorged; in other respects normal; weighed 1,975

grams. Kidneys: Left weighed 165 grams; right one 170 grams; both normal in macroscopical appearance. Other parts of the genito-urinary tract normal. Spleen weighed 700 grams, was very soft and highly congested. Calvarium removed. Brain weighed 1,385 grams, slightly anæmic, otherwise normal, meninges normal. Both arms swollen, the right more so than the left, almost three times its natural size. The right arm, on section, was observed to be thoroughly engorged with a pale reddish fluid, rather thin in consistency and slightly sanguo-purulent in character. All the tissues, the muscular in particular, were soft and partially liquefied, of a light greenish color and putrid odor, indicating beginning gangrene. The left arm presented the same characteristics, but in a less degree. The nature of this destructive process, together with its sudden onset and rapidity of progress strongly suggests moist gangrene, due to venous obstruction, probably of thrombotic origin.

M. W. G.
G. P.

Inflammation of intestines; enteroliths.

A. M.: age, 25; nativity, Nova Scotia; admitted to the marine ward of the German Hospital, Philadelphia, Pa., January 12, 1901; died January 13, 1901.

History.—Was taken sick January 9 with diarrhœa. On admission complained of dizziness, a general feeling of weakness, and vomiting. Was unable to keep anything on stomach. Bowels moved 20 times during the day. He was given large doses of bismuth combined with opium, also freely stimulated, but died in collapse on the evening of the 13th.

Autopsy twelve hours after death.—Body is that of a white male, well developed and well nourished, weight, [illegible] pounds; rigor mortis marked. Thorax: Pericardium normal, no adhesions, exudate, or effusion. Heart weighs 370 grams; position and shape normal, valves competent. Chordæ tendineæ and papillary muscles normal. Coronary arteries normal. A few small atheromatous patches upon the aorta. Left pleura normal. Left lung: Weight, 470 grams, color dark reddish brown, mottled, consistency soft, hypostatic congestion in dependent portions, on section surface moist and glistening, crepitant throughout, no cavities or tubercles, blood vessels normal. Right pleura normal. Right lung: Weight, 450 grams, color dark reddish brown in tint, slight hypostatic congestion, on section surface moist and glistening, crepitation throughout, consistency firm. The nerve trunks and diaphragm are normal. Abdomen: Omentum normal. Spleen normal, weight 160 grams. Consistency firm, on section pulp and follicles normal. Trabeculæ not increased. Kidneys: Right, weight 130 grams; left, weight 200 grams. Capsules not adherent, on section cortex, medulla, calyces and pelvis, normal. Supra-renal capsules normal. Urinary bladder normal, contains some urine. Rectum, duodenum, stomach normal. Gall-bladder patent. Liver, weight 1,610 grams, normal. Pancreas, [illegible] pelvis and mesentery normal. Small intestines normal in caliber and the mucosa. Mucous membrane congested. There are many small hemorrhagic areas. Some of the follicles stand out prominently. Large intestines normal. Great vessels normal. The brain and spinal cord were not examined.

W. A. K.
H. W. A.

INFLAMMATION OF INTESTINES.

Appendicitis.

A. P.: age, 21; nativity, Massachusetts; admitted to the Marine-Hospital, Stapleton, Staten Island, N. Y., [illegible]

History.—The patient was of strong physique and had always enjoyed good health. In June of the present year he had an attack of [illegible] a little lowering laxative in the right iliac region. [illegible] cast, but took a cathartic medicine and kept [illegible] as it soon left him. The second attack came [illegible] much like the first one. At the time of each [illegible] the onset of the attack the abdominal wall [illegible] Pain was felt in the right side of the abdomen [illegible] it impossible to locate the sensitive spot [illegible] The bowels had been inactive since the first [illegible] Calomel was given, followed the next day [illegible] result. Patient vomited. An operation [illegible]

M. H.; white; nativity, Illinois; age, 22 years; admitted to United States Marine Hospital, Detroit, August 1, 1900; died September 3, 1900.

History.—Patient stated that he had been sick for two weeks before his admission to the hospital and gave a history of headache, dizziness, anorexia, and diarrhea. His tongue was thickly coated, broad, and flabby; spleen enlarged and tender; gurgling and tenderness in right iliac region; abdomen distended and tympanitic. The diagnosis of enteric fever was made, and subsequently confirmed by symptoms, and the "Widal reaction."

The case progressed favorably until August 19, when symptoms of congestion of right lung appeared. On August 24 copious hemorrhages from the bowel occurred, the patient voiding clots for two days, and becoming very weak and emaciated. From this he failed rapidly, with persistent high temperature until September 3, when he died.

Necropsy (eleven hours after death).—Body of medium-sized man, much emaciated, with no special marks. Rigor mortis pronounced. Calvarium removed; dura anæmic; brain slightly congested, but presented no discernible lesions; weight, 1,520 grams. Chest and abdomen opened. The right lung was slightly adherent to parietes, very much congested, and contained a number of caseous tubercles in upper lobe; weight, 950 grams. The left lung was greatly congested; weight, 720 grams. The heart contained ante-mortem clots in both sides, otherwise appeared normal; weight, 390 grams. The liver was pale, but otherwise normal in appearance; weight, 1,990 grams. Spleen normal; weight, 340 grams. Both kidneys normal; weight of right, 220 grams; left, 240 grams. Stomach greatly distended with flatus and curdled milk. Intestines: The jejunum and ileum showed much glandular inflammation with numerous ulcerations. The colon was constricted about 20 cm. above the sigmoid flexure, probably the result of an old dysentery. There was a general involvement of the intestinal and omental glands, many of them being in an advanced state of ulceration. The other organs were normal.

E. K. S.
J. G.

F. von T.; white; age, 22; nativity, Holland; admitted to the United States Marine Hospital, Baltimore, Md., June 21, 1900; died July 24, 1900. Diagnosis, enteric fever.

Family history.—Good.

Previous history.—Habits good; never had any venereal disease; had malarial fever two years ago. Present illness began with a chill on June 18, previous to which he had not felt well for five or six days. Following the chill he had fever, but no sweat; felt quite sick up to the 20th of June, when he had another severe chill, after which he felt very weak and dizzy. Was admitted the following day, June 21. On admission the patient's general condition was good; bowels constipated; abdomen distended with gas; complained of headache; temperature, 39.6°. The next morning the temperature was 37.8°, and ran an irregular course throughout the rest of the illness. Eruption absent; abdominal tenderness not marked at any time during the course of illness; characteristic typhoid stools. July 18 patient complained of slight pain in both knee joints, which, however, soon disappeared. July 22, at 9 a. m., both arms were noticed to be swollen in the region of the elbow joints and associated with constant and severe pain and tenderness, being more pronounced in the right arm. The swelling increased very rapidly throughout the day and succeeding night, and on the following morning it extended from the shoulder to the hand and was œdematous in character. The next day, July 24, the right arm was swollen to about three times its normal size; left arm was also greatly enlarged. At 12 o'clock of same day pronounced gaseous distension of the abdomen developed, followed by rapid and feeble heart action and shallow and hurried respiration. Patient died at 3.45 p. m., July 24, 1900.

Necropsy (eighteen hours after death).—Post-mortem lividity marked in depe[illegible]ent parts; rigor mortis disappearing; body emaciated; pupils equal and dila[illegible] Pericardial sac opened; contained 110 c. c. of straw-colored fluid. Lungs: Ri[illegible] weighed 535 grams, left one 430 grams. Both lungs showed hypostatic co[illegible]tion. Base of left lung adherent to chest wall posteriorly and to the diaphr[illegible] Abdomen distended with gas; stomach empty, normal in appearance; lower [illegible] of small intestine highly inflamed, presenting numerous [illegible] of ulcer[illegible] one of which perforated all the coats of the intestine ab[illegible] from th[illegible] cæcal valve. No fecal matter had escaped into the ab[illegible] cavity, n[illegible] there any evidence of hemorrhage. Mesenteric glands [illegible]arged, [illegible] form appendix normal. Large intestine empty and in [illegible]volved. Chocolate color, somewhat engorged; in other res[illegible] weigh[illegible]

November 28. A small abscess was found, lightly confined by peritoneal adhesions. The appendix was curled on itself like a snail shell and bound together by strong adhesions, and was perforated near the tip. A spot on the cæcum within the abscess area looked very dark and almost ready to form a slough. The appendix was removed and the wound was drained with iodoform gauze. After operation the patient was nervous and restless and inclined to vomiting, but progressed fairly well for the first three days.

December 1.—The bowels moved well for the first time, and with the aid of an enema appeared to be thoroughly unloaded. The morning of December 2 the dressings were changed and the strands of gauze drainage renewed, all except one. There was only a slight purulent discharge in the dressings and the patient's condition was satisfactory at this time. In the evening of the same day he was taken suddenly with persistent vomiting, which soon became fecal in character, and the abdomen again became distended and tender. A high enema was given, the dressings were changed again and morphine administered, and the patient became easy until early the following morning, when the vomiting was renewed and his condition rapidly became hopeless. He died at 8.50 o'clock in the evening.

Necropsy (eighteen hours after death).—Body well nourished and muscular. Scars, apparently the result of a wet cupping, on the chest below the right clavicle. Rigor mortis. Slight post-mortem lividity. Operation wound about 8 cm. long in abdominal wall at outer border of right rectus muscle in iliac region, partly closed with sutures. No pus flowed from wound, but a small amount was in the dressings. Bones of skull very thin. Small amount of serum in the meninges of the brain. Sinuses and blood vessels moderately full of blood. The brain weighed 1,575 grams; externally and on section it presented no unusual appearances. There was a moderate amount of clear serum in the pericardial sac. The membrane was smooth and bright. The apex of the heart extended slightly to the left of the nipple in the fifth interspace. The left ventricle was contracted and empty, the right relaxed and full of dark-liquid blood. Small buff clots were in the aorta and pulmonary artery and adherent to the walls of the ventricles. The aortic valve withstood the hydrostatic test; the pulmonary artery was very relaxed and the valve would not close to the test. The valve segments in both appeared sound. The mitral orifice barely admitted the tips of two fingers. The tricuspid orifice admitted four fingers. The wall of the right ventricle was estimated 6 mm. thick and the left 20 mm. The heart weighed 385 grams. The left lung was nonadherent; it only collapsed slightly on opening the chest, and it pitted on pressure externally. The tissue crepitated and floated in water, and no consolidated tissue was found; the lung weighed 545 grams. The right lung was nonadherent and scarcely collapsed at all on opening the chest; it pitted on pressure externally; the tissue crepitated and floated in water; it was filled with dark blood, but free from any consolidation; the lung weighed 675 grams. The abdomen bulged and the intestines were enormously distended with gas. The omentum overlay the intestines and was lightly adherent to them, and a small amount of fibrinous exudate bound the coils of intestines lightly together immediately beneath the omentum and deeper in the right lumbar and iliac regions. Even at the site of the operation on the appendix the adhesions were not firm. There was no pus in the peritoneal sac, and, except for the slight fibrinous adhesions at the places named, the membrane was smooth and bright, though the intestinal walls were discolored and livid. There was a small amount of clear serum in the dependent parts of the cavity. The colon had no mesentery in the ascending or descending portions. The last portion of the ilium, to a point near the cæcum, had slipped far down into the pelvis, turning upon itself and forming a volvulus which constricted the gut between the mesentery and the brim of the pelvis at a distance of about 8 cm. from the cæcum and caused acute obstruction. The gut was held in this position by the fibrinous adhesions. At the point of constriction the wall of the gut was very dark colored in its entire thickness. The gut beyond the constriction was largely collapsed; above the constriction it was distended. The stump of the appendix was in process of healing, as was also the portion of the wound in the abdominal wall which had been sutured. The spleen was very small and weighed 98 grams. The left kidney weighed 230 grams; the right 235 grams. The capsules stripped readily. The tissue was mottled, the left being darker than the right, and the natural markings were distinct. The liver weighed 2,022 grams, and had nothing unusual in its appearance. The bladder contained a very small quantity of urine.

A. C. S.
G. W. S.

SEPTICÆMIA

[illegible] nativity, Scotland; last employed on ship *Frances*; admitted [illegible] States Marine Hospital, Stapleton, Staten Island, November 7, 1900; [illegible] 30, 1900.

The patient presented himself at the hospital with a large hernia in [illegible] which he supported with difficulty with a truss. His general and physical vigor were not good, but nothing definitely wrong could [illegible] evidence of moderate chronic bronchitis and old, dry pleurisy. [illegible] arrived from a five months' sailing voyage around the Horn, and [illegible] a great part of the voyage, being confined to his bunk over [illegible] with a fever. The nature of this fever could not be told. He had [illegible] after arrival in port. He was kept in hospital several days [illegible]. The operation for radical cure of the hernia was done under [illegible]. The following day his temperature rose to 39 and he devel[illegible] cough and I feared pneumonia threatened. The cough sub[illegible] few days, but the fever continued high, without chills or sweats or [illegible] and vitality seemed to fail. The wound was uncovered and [illegible] had been a great deal of extravasation of blood in the soft [illegible] suppuration was apparent in the wound. He was kept [illegible] means of stimulants and careful nursing, but died with [illegible] and œdema of the lungs. I am convinced that in this [illegible] extravasation of blood were due to defective coagulation, and [illegible] was due to auto-infection, either from purulent sputum in the [illegible] or possibly from germs of the [illegible] fever lingering in the [illegible] had no albuminuria before the operation, nor had it toward [illegible].

[illegible] —Rigor mortis. General nourishment [illegible] moderately distended skin [illegible] same tense and discolored with [illegible] and sordes. Extrava[illegible] and skin [illegible]. There was no pus in the [illegible] over the abdomen below the [illegible] with pus. There was moderate serous effusion in [illegible]. The brain weighed [illegible] grams. Heart. The pericardial sac [illegible] small quantity of clear serum. The heart was in systole. The left [illegible] partly admitted two fingers, the right one three. [illegible] and pulmonary valves held water. The arterial coats were [illegible] appearance. The heart weighed [illegible] grams. Lungs. The [illegible] adhesions. The lung [illegible] pressure externally [illegible] was [illegible] with stagnant blood in the upper [illegible] hard, the [illegible] and [illegible] appearance. [illegible] The [illegible] was [illegible] in the pleural cavity, the [illegible]. The lung tissue in the upper [illegible] was [illegible] appearance. Weight of lung [illegible]. The [illegible] was [illegible] from the slightest [illegible] part. There was a very small quantity of clear [illegible]. There was no extravasation of blood in the lung tissue [illegible] extending [illegible] The [illegible] weighed [illegible] grams. Except [illegible] appearances the tissue [illegible]. The [illegible] kidney [illegible] the tissue was pale, the [illegible] capsule [illegible]. The right kidney weighed [illegible] grams and had the same appear[illegible]. The [illegible] weighed [illegible] grams and had the normal appear[illegible]. The bladder was empty of blood and contained [illegible] two [illegible] diameter each. The [illegible] was [illegible] blood [illegible] urine. The [illegible] presented no [illegible]. The intestines were distended with gas.

[illegible]

APPENDICITIS (FULMINATING VARIETY) WITH EXTENSIVE SUB-PERITONEAL SUPPURATION.

H. F.; age, 21; was admitted into the marine ward of St. Mary's Infirmary June 4, 1901, complaining of symptoms pointing to appendicitis.

He gave a history of no previous illness of any moment, but stated that on June 1, 1901, while at sea he was seized with a severe pain of a colicky character, at first fairly generally distributed over the lower abdomen, but after twenty-four hours becoming localized at the umbilicus. He had had diarrhea and occasional vomiting. On admission at 11 a. m. the pain and tenderness were fairly definitely localized over the appendix, where also there was a very definite sense of resistance. His temperature was 101° F. There was also a distinct hardening and tenderness in the middle line from the pubes to the umbilicus. Operation at 4 p. m. on day of admission. The appendix was readily reached, being situated in front of the colon, and it, with the caput cæcum coli, was entirely extraperitoneal. It appeared gangrenous at the middle and was surrounded by a curious black gelatinous material which I have never before seen in any laparotomy. The appendix was removed and the wound drained. His temperature fell after the operation, but though there was no discharge in twenty-four hours from the operation his pulse got progressively weaker. In thirty-six hours after the operation there was a profuse discharge. An attempt was made to establish free drainage, but it was felt that there was no hope, as the patient's pulse had become very weak. He died at 10 a. m. on the second day after the operation.

Necropsy (two hours after death).—Body of a well-nourished, muscular, young man; post-mortem lividity well marked; rigidity not yet apparent; body warm; height, 5 feet 8½ inches. A small boil is noted over front of left knee. Pupils moderately dilated, equal. Face exceedingly livid. Surgical wound, 3 inches in length, over appendical region, shows the tissue in a blue, almost gangrenous, condition. Crepitation of the abdominal wall on the right just beneath the margin of the ribs outside the rectus muscle. Abdominal wall: Fat of the abdominal wall has a greenish appearance. Below the umbilicus, on opening the sheath of the rectus muscle, the whole sheath is greenish and infiltrated. The posterior surface of the rectus is covered with greenish lymph. On opening the space of Retzius a large quantity of pus escaped, from which cultures are made. It is noted at the time of operation that a sense of resistance was given in this region, though no pain was complained of. The whole abdominal wall in the subperitoneal tissue below the umbilicus seems one continuous suppurating cavity. Omentum, etc.: On opening the peritoneum the omentum is found adherent to the intestines. The subperitoneal suppurating process has spread half way up between the umbilicus and the xyphoid cartilage, and in several places it appears as though the suppuration had penetrated from outside; but this is doubtful, as there is a suppurative process behind the omentum in these sites. The omentum is deeply congested, especially down in the pelvis. It is adherent to the small intestines all over, and occasionally the adhesions are of a yellow character. Along the line of the transverse colon and between the layers of the omentum are similar yellow deposits. The liver is adherent to the omentum, hepatic flexure of the colon, gall bladder, and pyloric end of the stomach, as well as to the lesser omentum, by a similar exudation of a yellowish character. Old adhesions, thoroughly vascularized, exist between the underside of the gall bladder and omentum. The peritoneum on the posterior wall of the abdomen is extensively infiltrated with small suppurative areas. The small intestines, especially where in contact with the pelvic peritoneum or omentum, show areas of deep congestion. The ileum, at distances of approximately 6 and 18 inches from the ileocæcal junction, and the sigmoid flexure are bound down by pale yellow recent adhesions. The appendix, which was found in operation to lie in front of the cæcum, has been entirely removed (was completely extraperitoneal). Its base is gangrenous. Pus extends behind the cæcum in the peritoneal tissue up as high as the liver and on to the under surface of the diaphragm. It passes down into the pelvis and runs along the ureter, crosses over in front of the aorta, and spreads along the left ureter and inferior mesenteric vessels. It appears to have spread up along the mesentery of the rectum and other structures, passing down into the subperitoneal tissues. Right lung: Old pleuritic adhesions over the apex, hypostatic congestion of lower lobe, otherwise same as left organ. Spleen deeply congested, hemorrhagic in small points; considerable hæmic pigment in granules scattered about. Psoas muscle also contains pus, although the right muscle seems to have escaped. The pyogenic process is more advanced in pelvis behind the rectum and around the bladder than anywhere else, the whole tissue in front of the bladder being full of thick yellow pus. Stomach and small intestines appear healthy, except for lesions above mentioned. Large intestine: Caput cæcum coli is somewhat injected, but otherwise appears normal, except as above stated.

[illegible]

W. K.

[illegible] FOLLOWING LAPAROTOMY

[illegible]

kidney weighs 260 grams and was normal. Spleen weighs 260 grams; was bound down by adhesions; capsule was adherent. Bladder was friable and contained about 50 c. c. of turbid fluid, containing cheesy masses similar to those found in the left kidney. Brain weighs 1,490 grams and is normal.

F. I.

Wound of parietes of abdomen, penetrating, incised, peritonitis.

W. T. (colored); age, 31; nativity, Virginia; admitted to the United States Marine Hospital, Evansville, Ind., February 3, 1901; died February 7, 1901.

Clinical history.—On admission (7.15 p. m.) he stated that at 11 o'clock a. m. on the day before he had received a stab wound of the abdomen while on the boat up Green River near Bowling Green, Ky. He received medical attention at once. Patient was anæsthetized; wound investigated; no injury to intestines found; wound sutured and dressing applied. On examining the patient a wound about 1 cm. long was found just to the left and a little above the navel. Patient seemed to be in good condition; no fever; not much pain, and that just around wound. He could handle himself pretty well. Pulse was good, and patient's heart and lungs were normal. Wound was dressed. The next day he felt better. Pain and tenderness was less. That night he vomited a little, and at 9.30 p. m. he had a free voluntary action of the bowels. This made him feel much better. He took milk, beef tea, and a little whisky during the 5th.

Next morning he took a turn for the worse; abdomen enlarged and became tense, and pain increased. He vomited considerable. Two enemata produced free action of bowels, which relieved him for only a short time. Arrangements were made for a laparotomy, which was begun at 6 p. m. on February 6. An incision about 13 cm. long was made, with its center at the site of the original stab wound. Some dark-colored blood was found in the abdominal cavity. The intestines just under the wound were bound together by adhesions. A small pocket of thin pus was found about 5 cm. down. This and the blood were carefully mopped out, and then the cavity was flushed with a decinormal salt solution at 37° C. No point of bleeding was found, and there was no wound of the intestines. The abdominal cavity was given another flushing with the salt solution, and the wound closed with deep and superficial sutures, two gauze drainage strips being left in at the lowest end of the wound. Patient was put to bed, and hot-water bags put about him and stimulants by hypodermic method given. He suffered a little from shock. The next morning he was not so well. He grew worse and died at 12 o'clock noon February 7, 1901.

Necropsy (twenty-two hours after death).—Body that of a well-developed negro; nutrition good; pupils dilated; rigor mortis marked. Heart: Weight, 367 grams; normal. Right lung: Weight, 655 grams; congested, otherwise normal. Left lung: Weight, 520 grams; congested, otherwise normal. Liver: Weight, 1,920 grams; normal. Spleen: Weight, 140 grams; normal. Right kidney: Weight, 170 grams; normal. Left kidney: Weight, 190 grams; normal. Pancreas: Weight, 125 grams; normal. In the abdominal cavity was found some thin, dark-colored fluid (remains of normal salt solution). There had been no more hemorrhage. The original hemorrhage had in all probability been a secondary one which came from a wounded vessel in the stab wound of the abdominal parietes. Numerous adhesions (new) bound the intestines together. Most of them were about site of stab wound. No more pus was discovered. Intestines were carefully examined for a puncture, but none was found. Omentum was congested and showed a wound; other organs and tissues normal. Case was one of infection of peritoneum by point of knife carrying infection deep among the intestines.

J. H. O.

Cirrhosis of liver.

T. S.; male; white; age, 38; admitted to hospital July 26, 1900; died July 30, 1900.

History.—Patient had been a hard drinker several years prior to his illness. After five weeks' sickness, with rapidly increasing œdema of the extremities, he entered the hospital. At that time there was great general anasarca; the abdomen was somewhat distended with fluid; eyeballs protruded; conjunctivæ week injected; ecchymoses were present in eyelids and neck. His pulse was wear; heart sounds weak; expiratory murmur prolonged. Liver could not be palpated; percussion borders vague. In spite of vigorous stimulants and eliminative treatment, the anasarca increased; ecchymosis quickly appeared in both inguinal regions, extending rapidly along right side, and on July 30 patient died.

Necropsy (eleven hours after death).—Rigor mortis slight; great œdema of extremities, which ooze quantities of pure yellow fluid upon puncture with knife

[illegible] extensive ecchymoses right side of face, neck, and body, and both inguinal regions. Abdomen slightly distended, conjunctivæ intensely red and congested. Calvarium removed, dura congested, sinuses distended with blood; brain congested; weight, 1,[illegible] grams. Thorax opened; pleura extensively adherent to pericardium and to anterior and posterior chest walls. Right pleural cavity contained [illegible] of fluid, left, 4[illegible]. Right lung intensely congested; bronchial glands enlarged; weight, 4[illegible] grams. Left lung congested and mottled on surface, otherwise normal in appearance; weight, [illegible] grams. The pericardium was normal in appearance, but contained an excess of fluid. The surface of the heart was pale and mottled with yellow patches. Right heart distended with clotted blood; valves and musculature normal; weight, [illegible] grams. Abdomen opened; cavity contained [illegible] of bloody, serous fluid; peritoneum greatly congested. Liver was dilated on surface, pale red in color, hard and firm to the touch, somewhat atrophied; weight, 1,[illegible] grams. Gall bladder distended with bile. Spleen very small and contracted, light gray in color, hard and firm to the touch, with marked resistance to cutting; weight, [illegible] grams. Right kidney normal in appearance; weight, 1[illegible] grams. Left kidney normal in appearance; weight, 1[illegible] grams. Pancreas normal. The stomach was empty, its mucosa greatly congested; its veins dilated. Ureters normal. Bladder empty.

B. D. P.
J. G.

Chronic interstitial nephritis.

W[illegible], colored, male, age, [illegible] years; nativity, Missouri, admitted to the United States Marine Hospital, St. Louis, Mo., March 18, 1901, and died April 7, 1901.

Family history.—Negative.

Personal history.—Patient complained of severe pain in left side in region of the spleen and extending into axilla. He stated that he had been suffering for five days, gradually getting worse. Sputum is blood streaked. Bowels inactive.

Physical examination.—Body poorly nourished; expansion of chest diminished and extremely painful; vocal fremitus increased; percussion over entire lower lobe of left lung in axillary line posteriorly; the area of dullness extends to lower border of scapula; inspiration and expiration prolonged and prolonged; subcrepitant rales heard over all of lower lobe of left lung; vocal resonance very much increased in same area. Temperature, [illegible]; pulse, 114; respirations, [illegible]. No tubercle bacilli found in sputum. Diagnosis, pneumonia left lower. Treatment: Cantharis and [illegible] of each 12 grains at once; milk diet; whisky; [illegible] every twenty four hours.

March [illegible].—Temperature, [illegible]; pulse, 140; respirations, [illegible]; tongue blistered. Pulse very rapid and [illegible]; impossible and patient violently delirious. Normal saline [illegible]; veratrum viride in doses of [illegible] every three hours ordered.

March [illegible].—Patient somewhat improved, not delirious. Pulse 1[illegible]; respirations [illegible]; temperature [illegible]. Veratrum viride discontinued and sedatives and milk diet ordered.

March [illegible].—Patient much improved. Temperature [illegible]; pulse, [illegible]; respirations [illegible]; and resolution taking place rapidly in affected lung. All medicines, except whisky, were discontinued and a more liberal diet allowed.

April [illegible].—Patient was practically well and his discharge was contemplated.

April [illegible], [illegible] m.—Patient's temperature suddenly rose to [illegible]; pulse [illegible]; respirations [illegible]; and he became delirious and a few hours after [illegible]. Internally [illegible] were extracted and blood drawn [illegible]. He was [illegible] fever and urine and [illegible] preparations. He [illegible] despite all treatment until [illegible] when [illegible] expired. Examination of urine showed it to be alkaline [illegible] containing quantities of urine and albumin [illegible] [illegible] hours after death. Examination, March [illegible]: [illegible] poorly nourished; external genital organs [illegible]; abdominal [illegible]; [illegible] normal manner; [illegible] of skull [illegible]; [illegible] brain, normal in appearance [illegible]. [illegible] grams; lateral ventricles contain small quantity of straw colored fluid; [illegible] matter of brain very thin, sulci shallow. [illegible] All tissues very dry and bloodless, and [illegible]. Pleura [illegible] and adherent to abdominal wall [illegible]. The pleural cavity. Pericardium yellow, thickened [illegible] normal quantity of straw colored fluid; heart [illegible] fatty; weighs 3[illegible] grams, right side empty and flaccid; [illegible] right lung congested, 23 by 12 by 9 cm., weighs [illegible] grams; tissue gray, with well marked [illegible]

on section and quite dry; left lung, adherent to diaphragm and to chest wall throughout, adhesions recent, crepitant, but not sufficiently so in lower lobe, measures 22 by 15 by 5 cm. and weighs 630 grams, color on section dark red, especially in lower lobe. Abdominal cavity: Omentum small, rolled up, and congested; all contents of abdominal cavity are yellowish; spleen measures 11 by 8 by 4 cm. and weighs 160 grams, tissues are red with yellowish tinge and rather tough on section; right kidney, very small and misshaped, measures 7 by 6 by 2 cm. and weighs 65 grams, has small serous cyst at outer border, the cortex is almost entirely gone, very pale, and streaked with yellow, pyramids very well marked, but small; left kidney measures 11 by 7 by 3 cm. and weighs 135 grams, is pale in color and streaked with yellow, cuts tough, and cortex thin, pyramids prominent; stomach is normal in appearance, save yellowish color, and empty; small intestine is yellowish and very thin in many places, but there is no ulceration; mesentery is congested, and glands are uniformly enlarged; pancreas normal; bladder contains about 100 cc. of highly colored urine, and the anterior wall is congested; liver, mottled and of yellowish-red color, measures 36 by 19 by 7 cm. and weighs 1,685 grams, cuts tough, and tissues are very dry and greasy, giving knife an appearance of having been used to cut lard, yellowish tinge throughout; gall bladder contains about 25 cc. of bile, and bile duct is patent. Death was probably due to uræmic poisoning. As before stated, tissues were remarkably dry and yellow, and had the case occurred in the South during the summer or fall months the post-mortem findings might have been mistaken for those of yellow fever, except for the condition of the stomach and duodenum.

G. M. C.
W. G. S.

Chronic nephritis.

P. M.; age, 67; born in France; admitted to the United States marine ward at St. Mary's Infirmary, Galveston, Tex., January 14, 1901, suffering from chronic nephritis; died January 17, 1901.

Clinical history.—Patient was extremely weak and could speak very little English, so that a history was not obtained further than that he thought he had had fever for some days; also for some months his legs had been swollen, but he had noticed a considerable amount of swelling of his whole body during the three weeks to date of admission.

Physical examination.—The most marked feature was an extreme degree of anasarca. There was no part of his body that did not pit markedly on pressure. Even the wrists and anterior chest wall were œdematous. A dull percussion note over the abdomen and in the loins (patient being recumbent) indicated ascites, and his shortness of breath, with dull percussion note and fine crepitations over the bases of both lungs, pointed to pulmonary œdema. The heart sounds were very faint and no murmur could be distinguished. Examination of the urine showed it to be very scanty, high colored, and loaded with albumen, while microscopically it exhibited granular, epithelial, and hyaline casts in considerable numbers. Calomel, followed by a saline, was administered, with renal, cardiac, and general stimulants, but from the first treatment seemed hopeless. He died on the morning of the third day after admission.

Necropsy (five hours after death).—Body of a tall, muscular man; weight, 180 pounds; post-mortem rigidity absent; lividity coming on; marked general œdema; old scars as of rupial sores on ankles; recent scar on dorsum of left foot. A fatty tumor was seen in middle line 4 inches below the xiphisternum about the size of a walnut, which was found to consist of herniated subperitoneal fat. The fatty layer of the abdominal wall was 1 inch thick. Abdomen: About 1,900 c. c. straw-colored fluid in the abdominal cavity. Stomach and intestines, bladder and prostate, and abdominal glands presented no pathological appearance. The right kidney was average in size, pale in color, and its surfaces exhibited numerous small subcapsular cysts. The surface was finely granular, the capsule rather adherent, leaving a granular surface when stripped off, the cortex being slightly torn in the process of stripping. On section the cortex was seen to be decidedly diminished in thickness, the Malpighian bodies were deeply congested, the pyramids were not well marked off from the cortex, and the venæ rectæ were deeply injected. There appeared to be some parenchymatous nephritis added to a chronic interstitial inflammation. The left kidney was similar to the right. The spleen was adherent to the diaphragm; its capsule had undergone hyaline changes in small areas. It was slightly enlarged, soft, dark in color, and mottled with yellow. The Malpighian bodies were prominent and the organ rather friable. The liver was slightly enlarged, and presented a granular surface. The centers of the lobules were deeply congested, and their peripheral margins yellow and fatty

[illegible] The gall bladder was full of bile and contained several gall stones, contained about 120 [illegible] straw colored fluid. Heart [illegible] blood all the cavities were filled with dark fluid blood, and [illegible] was present. The aortic and pulmonary valves were [illegible] water tight. All the valves were healthy. The left ventricle [illegible] the right ventricle [illegible] at the apex points. The muscle [illegible] evidence of fatty degeneration. There were slight [illegible] in the aorta just above the sinuses of Valsalva, [illegible] showed no fibroid changes. Both pleural cavities contained [illegible] of pale straw colored fluid. The right lung was united to all at the apex by old adhesions and the middle and upper lobes were [illegible]. No signs of recent pleurisy were present. The lung was [illegible]. The base was deeply congested, hepatized and almost carnified [illegible] fluid in the pleural cavity. The bronchial mucosa [illegible] tubercle nodules. There were [illegible] of tuberculosis, [illegible] similar to the right, old pleural adhesions [illegible] the right side. The brain was not examined.

[illegible] Heart [illegible] left ventricle showed well marked inter[illegible] marked variation in the size of the fibers and in [illegible] of the nuclei. The muscle substance shows no [illegible] in the parts examined but the polar portions of the fibers [illegible] The [illegible] pericardium [illegible] adipose tissue and [illegible] considerable [illegible]. The [illegible] Muscle from [illegible] Muscle from the [illegible] Lungs. [illegible] lung was [illegible]

Physical examination.—The area of heart dullness is enlarged and a murmur is heard over the cardiac apex. There is dullness over the apex of the right lung, and inspiration and expiration are roughened and shortened over both lungs. Quantity of urine passed in twenty-four hours, 800 c.c. The urine contains a large quantity of albumen. The liver dullness extends from the fifth rib to a slight distance below the costal border. There is tenderness on pressure over the gall bladder. During April and May the patient suffered very much from pains in his chest and abdomen. He was unable to walk any distance on account of the great dyspnœa. There was considerable ascites and swelling of the legs, but this was controlled to a considerable degree by saline purgatives and diuretics. He had been feeling better during the latter part of May, but died very suddenly while lying in bed at 6 p. m. June 1. The evening sick call had been made only a few minutes before, and he had expressed himself as feeling comfortable.

Necropsy (fourteen hours after death).—Body 163 cm. long. Face bloated; abdomen swollen; layer of fat in abdominal walls 2 cm. thick, abdominal muscles are a pale red color; 3,000 c. c. of straw-colored fluid in pleural, peritoneal, and pericardiac cavities. Omentum contains considerable fat. Intestines of a redish gray color; appendix normal. Brain: Weight, 1,380 grams; measurements, 18½ by 15 cm., tissue apparently normal. Heart: Weight after removal of clots, 565 grams; measurements, 11 by 13 cm.; right ventricle filled with dark red clots, wall of right ventricle 5 mm. thick. Valves of right side of heart normal. Leaves of mitral valve very much roughened. Aortic valve normal. Left lung: Weight, 655 grams; color red, mottled with gray; measurements, 27 by 16 by 7 cm.; soft and crepitant; small quantity of bloody froth exudes on section. Right lung: Weight, 670 grams; measurements, 27 by 16 by 7 cm.; soft and crepitant with exception of middle lobe, which is noncrepitant and hard, feeling like "liver" to the touch; color dark red; tissue resistant to knife on section. Spleen: Weight, 180 grams; measurements, 12 by 8 cm.; tissue tough, trabeculæ prominent, color dark red. Left kidney: Weight, 230 grams; measurements, 12 by 8 cm.; pyramids prominent, tissue very tough on section, color yellowish brown. Right kidney: Weight, 225 grams; measurements, 12 by 8 cm.; condition same as left kidney. Pancreas, stomach, and intestines normal. Liver: Weight, 2,115 grams; measurements, 26 by 18 by 8 cm.; externally brown mottled with white. Internally the mottled condition is much more marked; in places there is more white than red color to the tissue. This condition exists throughout the entire liver. Tissue greasy to the touch, tough and resistant to the knife.

W. G. S.

Bright's disease, chronic nephritis, interstitial.

P. R.; age, 47 years; nativity, Denmark; admitted to the United States Marine Hospital, port of San Francisco, Cal., November 27; died December 30, 1900.

History.—The patient on entering the hospital complained of two things in particular—one was œdema of the lower extremities, the other was severe asthmatic attacks, which caused him to pass his nights very uncomfortably. He mentioned also, as facts of minor importance, that he passed a great deal of water and that for the last two years he had risen several times regularly at night to evacuate his bladder. Physical examination revealed the following: Lungs were slightly emphysematous, but otherwise apparently normal. Area of cardiac dullness enlarged, second aortic sound accentuated. Pulse rapid (116) and of very high tension. Abdomen distended, apparently contained fluid. Legs doughy and œdematous. Urine alkaline; of ammoniacal odor; specific gravity, 1,010; a high percentage of albumen; some casts, pus, and mucus. After a few days' rest in bed and medication with digitalis all the symptoms began to subside, but the digitalis gave rise to vomiting and was replaced by strophanthus, after which the vomiting ceased. December 7 the patient was seized with an acute attack of asthma, following which he expectorated a bloody, jellylike material. Following this the patient gradually improved (aside from the hemoptysis) and in a week or more was allowed to leave his bed and sit up. On December 22 another peculiar manifestation occurred. The patient was seized with a brief attack, apparently maniacal in character, during which he shouted and vociferated quite loudly, and persisted in bumping his head against the wall. The duration of this attack was about five minutes, following which the patient was as sane as usual and explained that he had been subject to such manifestations since childhood. These attacks also recurred at short intervals up to the time of his death. December 26 it was noticed that his legs were again slightly œdematous, and he was again ordered back to bed. The œdema lessened, but in a few days urgent dyspnœa set in, and on the 30th of December at 2.25 p. m. the patient died.

[illegible] *after death.* Left kidney weighing 120 grams, [illegible] size. Perinephritic fat large in amount; capsule nonadherent [illegible] pyramids well marked, and entire organ very much [illegible]

C. W. V.
J. M. G.

Pneumonia, lobar.

[illegible] white, age [illegible] years, nativity Indiana, admitted to the United States [illegible] Hospital, St. Louis, Mo., April [illegible], 1900, and died the same day.

[illegible] The patient was brought to the hospital in the ambulance in a nearly [illegible] condition. His face was cyanosed and he breathed with great difficulty. [illegible] was barely perceptible at the wrist, the temperature was [illegible] and the [illegible] He had a loud and painful cough and the sputum was so tenacious that he was able to expectorate very little [illegible] The physical examination [illegible] and dullness [illegible] over the whole of the [illegible] respiratory sounds had entirely disappeared, only a few rough [illegible] here and there. The respiratory sounds were greatly exaggerated [illegible] that the disease had not extended to this lung. [illegible] p. m. the [illegible] could be heard all over the ward; pulse very weak and thready, [illegible] temperature [illegible] respiration [illegible] [illegible] covered with cold perspiration; temperature [illegible] Death occurred [illegible]

[illegible] *after death.* [illegible] He [illegible] well [illegible] marked [illegible] Moderate [illegible] quantity of fat. Heart: Weight [illegible] grams [illegible] the usual quantity [illegible] Heart: Weight [illegible] grams [illegible] Left lung: Weight [illegible]

[illegible]

W. G. S.

[illegible]

[illegible] years, nativity Mississippi [illegible] Hospital, St. Louis, Mo. [illegible]

[illegible]

[illegible] temperature was [illegible] with [illegible]

tember 1 an examination of the chest showed dullness and fine crepitant râles over the base of the right lung, and the intensity of the respiratory murmur was increased over the left lung. During the day he expectorated some blood. The temperature was normal this day until 4 p. m., when it rose to 39°. At 9 a. m. September 2, the temperature was still 39°, the respirations 54, and the pulse too rapid to be counted. He expectorated about two mouthfuls of bright red blood. Death occurred from exhaustion at 11.35 that night.

Necropsy (ten hours after death).—Height, 169 cm.; body very much emaciated. Small quantity of fat in the abdominal wall; peritoneum thickened; color, grayish yellow. On sawing through the skull cap and incising the cerebral membranes a quantity of serous fluid, estimated at 100 c. c., poured out. Brain: Weight, 1,305 grams; measurements, 19 by 14 by 8 cm.; tissues apparently normal. Heart: Weight, 390 grams; measurements, 10 by 10 by 6 cm.; right ventricle contains chicken-fat clot; thickness of wall, 6 mm.; left ventricle contains reddish-white clot, extending up through mitral valve; an organized yellowish-white clot found at apex of left ventricle; valves and endocardium in good condition; thickness of wall of left ventricle, 6 mm. Left lung: Weight, 540 grams; measurements, 21 by 16 by 6 cm.; crepitant throughout; reddish color above, very dark red below. Right lung: Weight, 840 grams; measurements, 22 by 16 by 7 cm.; crepitant above, but solidified below; color dark, lower portion nearly black. Spleen: Weight, 855 grams; measurements, 14 by 9½ by 3 cm.; slate color externally, internally color reddish brown; tissue firm. Left kidney: Weight, 255 grams; measurements, 14 by 9 by 5 cm.; cortical portion 6 mm. thick; color of cortical portion reddish, with yellowish-brown spots and streaks; pyramids prominent; line of demarkation between pyramidal and cortical portions well marked. Right kidney: Weight, 210 grams; measurements, 13 by 8 by 4 cm.; cortical portion 7 mm. in thickness; color of cortical portion yellowish red, the yellow color being much more marked than in the other kidney. Stomach: Length, 22 cm.; greatest diameter, 11 cm.; mucous membranes reddish-gray color; the rest of the intestines and the appendix are apparently normal. Liver bound down to the side of the abdominal wall; weight, 1,965 grams; measurements, 28 by 22 by 8 cm.; color, reddish brown; tissue normal.

W. G. S.

Chronic nephritis.

J. J.; age, 41; nativity, Norway; transferred from Norfolk, Va., to the United States Marine Hospital, Baltimore, Md., September 23, 1900; died November 9, 1900.

History.—Admitted to hospital at Norfolk, Va., August 14, 1900. Father died of phthisis pulmonalis; cause of mother's death unknown; four sisters living and well; two sisters died twenty years ago with phthisis pulmonalis. Does not remember having any of the diseases of childhood. Had an "ulcer" on the penis eleven years ago and diphtheria six years later. Since that time has had considerable trouble with his throat. On admission to hospital at Baltimore physical examination showed a slightly accentuated second aortic sound and a somewhat increased pulse tension. Apex beat was one-half inch external to its normal point. Liver and splenic dullness somewhat increased. The temperature for the greater part of the time was subnormal, but once, on the 4th of October, going up to 39° C., and accompanied by pain in the right chest. Physical examination revealed a pleuritic friction rub. Examination of the urine showed the following: Quantity passed in twenty-four hours, 2,000 c. c.; specific gravity, 1.010; reaction, acid; color, light straw. Chemical examination: Albumen, a decided trace; sugar, bile, and blood, none; urea, 33.6 grams in twenty-four hours; chlorides, phosphates, indican, and uric acid diminished. Microscopical: A little pus and mucus and a few uric-acid crystals. Hyaline, fine and coarse granular casts in good numbers. Patient was placed on Basham's mixture, stimulants, and selected diet, but he gradually lost strength and died without additional symptoms.

Necropsy (eight hours after death).—Height, 5 feet 6 inches. Post-mortem lividity slight. Rigor mortis marked. Pupils normal. General nourishment fair. Pericardial sac normal. Heart contained a large ante-mortem clot in right ventricle. Walls of left ventricle somewhat hypertrophied. Aortic, mitral, tricuspid, and pulmonary valves normal. Weight, 325 grams. Lungs: The left presented near the posterior surface of the apex a cavity about the size of a chestnut and containing a very little tuberculous matter. Weight, 570 grams. The right lung was normal and weighed 760 grams. The left pleura exhibited marked diaphragmatic adhesions besides a few smaller ones in the mid-axillary line. The right pleura showed old adhesions, most marked on the posterior aspect. There was no fluid in either cavity. Liver dark in color, markedly injected, hard and resistant. Weight, 1,710 grams. Kidneys: Both showed a slightly adherent cap-

[illegible] kened and pale cortex, pyramids somewhat paler than normal and a [illegible] ing an almost yellow color, except where it is relieved by the net[illegible] vessels. Right kidney weighed [illegible] grams, the left [illegible] grams. [illegible] was very large, weighing 65 grams, hard and resistant and very dark [illegible] Its shape was much the same as a horseshoe minus a half of one of its [illegible] The dura mater was markedly thickened and in two places along the [illegible] was adherent to the pia and the pia to the brain substance. The [illegible] convolutions, the gray matter noticeably thin, and the weight 1,520 grams. [illegible] other organs were normal.

W. C. B.
G. P.

Epilepsy, acute nephritis.

[illegible] age 2[illegible] nativity, Louisiana; admitted to United States Marine Hospital, [illegible] Staten Island, November [illegible], 1[illegible]; died November [illegible], 1[illegible]. [illegible] The patient was brought to the hospital in a dazed condition, unable [illegible] without support. Those who brought him said that he had had a fit a [illegible] before, in which he had fallen unconscious and had had a long con[illegible] according to the description. His mental condition was such as is often [illegible] an epileptic seizure, the patient being in a half stupor, but able to give [illegible] of himself. He said he had had like attacks all his life. The mental [illegible] grew worse rather than better and some delirium, or mental aberration, [illegible]. He would take no medicine and only a little food and was difficult [illegible] but would sometimes get out of bed when left alone. He showed irrita[illegible] [illegible]. A specimen of urine could not be obtained for examina[illegible] the last day, as the patient would invariably rouse himself and go to [illegible]. The specimen which was finally obtained was scanty and contained a [illegible] of albumen. Examination of the chest revealed nothing abnor[illegible] [illegible] rales in a small area in the central portion of the right [illegible] were [illegible] while the patient was in the hospital and the [illegible] were [illegible] indicate uremia, though this must [illegible] immediate cause of death.

[illegible] Rigor mortis. Body well nourished and [illegible] external blemishes. On removing the calvarium dark blood dripped [illegible] the punctate wounds made in the dura mater in stripping it from [illegible] bulging with blood. [illegible] dark blood [illegible] the vessels when the brain was [illegible]. Blood [illegible] the pericardial sac [illegible] of clear serum. The heart weighed [illegible] grams. Both [illegible] admitted three fingers. The pulmonary and aorta[illegible] valves. There was a very small [illegible] in each ventricle, the blood [illegible]. The left lung weighed [illegible] grams. The tissue was very [illegible] blood. The right lung weighed [illegible] grams. The tissue was [illegible] except in a small area in the middle [illegible] and lower [illegible] of the upper lobe, which was [illegible] [illegible] serum to the cut surface. The spleen weighed [illegible]. The [illegible] was very firm and very dark [illegible]. The left kidney [illegible] grams, the right [illegible] grams. The capsules stripped easily. The [illegible] was deeply [illegible] and crowded blood. The [illegible] and pyramids were of normal proportion. The [illegible] were [illegible]. The pancreas weighed [illegible] grams. The liver weighed [illegible] grams [illegible] was shrunken and empty. There were [illegible] [illegible]

A. L. S.
G. W.

[illegible]

[illegible] age [illegible] nativity, England; admitted to United States Marine Hospital, [illegible] January [illegible] and died January [illegible]. [illegible] the evening of January [illegible] patient had a severe [illegible] pain on the right side of the [illegible]. About the [illegible] pain there was at first [illegible] [illegible] were [illegible] and vomiting. [illegible] and great prostration. [illegible] were [illegible] per minute; pulse [illegible]. [illegible] *[illegible] examination.* Expression of great [illegible]. [illegible] moaning pain in sternal region; tongue was dry and shrunken. [illegible] There was

dullness at the base of the right lung, and bronchial breathing under the scapula. Crepitant râles were heard over the whole posterior and lateral surface of the chest on the right side. Two days after admission the base of the left lung became dull, and crepitant râles appeared; also tubular breathing. The symptoms noticed then were orthopnœa, more feeble pulse, accelerated respirations to 40 per minute, and increase of temperature to 40° C. A persistent cough caused great pain, and the sputum was of a fluid, prune-juice color. Patient was restless and changed positions frequently. On the following day 500 c. c. of dark venous blood were removed from the median basilic vein of the left forearm and 500 c. c. of normal saline solution introduced. This operation gave the patient great relief. All the symptoms improved promptly, and the dullness which was present in the base of the left lung greatly diminished. Patient was able to lie on his back for the first time in twenty-four hours, and was able to breathe more easily. A urinalysis revealed the following: (*a*) Chemical—color dark reddish, reaction acid, sediment whitish flocculent, albumen present in moderate amount, blood present, chlorides absent, diazo reaction positive; (*b*) microscopic—an enormous number of granular casts, squamous epithelium, a few hyaline casts, red blood cells, and a small amount of pus in the uncentrifugalized sediment. Quantity of urine for twenty-four hours, 1,300 c. c. Patient continued in an improved condition for two days after the blood letting and transfusion, but after passing the seventh and ninth days of the disease the lungs showed no tendency to clear up; on the contrary, extension into the upper lobe of the right and into the middle of the left lung occurred. The crepitant râles gave way to subcrepitant râles, and air entered the involved portions of the lung, but the temperature persisted at 39° C. The respirations over the anterior part of the chest were of a very harsh and loud character. Patient had several violent attacks of hiccough, and early in the disease vomiting seriously interfered with the plan of medication and nourishment. Patient was of a vigorous constitution, though something of a drinker. Even on the eleventh day of the disease the crisis failed to occur. The respirations increased to 40 per minute, the pulse to 140, and the temperature to 39° C. The extremities became livid and death supervened the seventh day after admission.

The treatment, other than that indicated, was symptomatic, embracing the use of ammon. carb. in .6 gm. doses, diluted with whisky 20 c. c., t. i. d. This had to be discontinued in a short time on account of the vomiting which it seemed to induce. Cocain hydrochlor. in .008 doses failed to relieve two violent attacks of singultus. This distressing symptom subsided each time promptly under amyl nitrite by inhalation. Cathartics were employed to relieve constipation, and acetanilid was used cautiously to relieve pyrexia. To sustain the heart strych. sulph. in .002 doses was employed hypodermically every 4 to 6 hours, as necessary.

Necropsy (three hours after death).—Body that of an adult white male, apparently 40 years of age, well developed and nourished. Lividity most marked over pendant portions of body. Rigidity in lower extremities. The body was warm. The median incision revealed a liberal amount of subcutaneous fat. Chest: Pericardium normal. The heart weighed 320 grams, and the ventricles were filled with white ante-mortem clots; valves normal, though a few atheromatous plaques occupied the aorta. The myocardium was normal. The right lung weighed 1,580 grams, the left 730. The two upper lobes of the right were covered anteriorly with a thick fibrous clot, and the same formation occupied the extreme lower margin of the right base anteriorly. All the lobes of both lungs were agglutinated by recent lymph. The whole right lung was carnified, stage of red hepatization, a shade of gray being noticeable in places. A small abscess occupied the extreme apex of the right lung, and the tissue surrounding it was soft and infiltrated. No portion of this lung would float in water. The lower lobe of the left lung showed pneumonic consolidation, stage of red hepatization. The upper lobe was congested throughout, though crepitant. Kidneys: The left weighed 210 grams, the right 190. The former had a small retention cyst in its upper and inner part above the pelvis. Both organs were much congested, blood escaping freely on section. The capsules were adherent in places. Liver: Weight, 1,870 grams; apparently normal, though the gall bladder was shrunken to one-fifth its normal size and contained three large impacted stones, completely occupying the cavity and partially occluding the duct. The spleen was soft and filled with blood. Weight, 220 grams. Pancreas normal and weighed 85 grams. Stomach and intestines normal.

F. J. T.
H. W. S.

CONTRIBUTED ARTICLES.

dullness at the base of the right lung, and bronchial breathing under the scapula. Crepitant râles were heard over the whole posterior and lateral surface of the chest on the right side. Two days after admission the base of the left lung became dull, and crepitant râles appeared; also tubular breathing. The symptoms noticed then were orthopnœa, more feeble pulse, accelerated respirations to 40 per minute, and increase of temperature to 40° C. A persistent cough caused great pain, and the sputum was of a fluid, prune-juice color. Patient was restless and changed positions frequently. On the following day 500 c. c. of dark venous blood were removed from the median basilic vein of the left forearm and 500 c. c. of normal saline solution introduced. This operation gave the patient great relief. All the symptoms improved promptly, and the dullness which was present in the base of the left lung greatly diminished. Patient was able to lie on his back for the first time in twenty-four hours, and was able to breathe more easily. A urinalysis revealed the following: (*a*) Chemical—color dark reddish, reaction acid, sediment whitish flocculent, albumen present in moderate amount, blood present, chlorides absent, diazo reaction positive; (*b*) microscopic—an enormous number of granular casts, squamous epithelium, a few hyaline casts, red blood cells, and a small amount of pus in the uncentrifugalized sediment. Quantity of urine for twenty-four hours, 1,300 c. c. Patient continued in an improved condition for two days after the blood letting and transfusion, but after passing the seventh and ninth days of the disease the lungs showed no tendency to clear up; on the contrary, extension into the upper lobe of the right and into the middle of the left lung occurred. The crepitant râles gave way to subcrepitant râles, and air entered the involved portions of the lung, but the temperature persisted at 39 C. The respirations over the anterior part of the chest were of a very harsh and loud character. Patient had several violent attacks of hiccough, and early in the disease vomiting seriously interfered with the plan of medication and nourishment. Patient was of a vigorous constitution, though something of a drinker. Even on the eleventh day of the disease the crisis failed to occur. The respirations increased to 40 per minute, the pulse to 140, and the temperature to 39 C. The extremities became livid and death supervened the seventh day after admission.

The treatment, other than that indicated, was symptomatic, embracing the use of ammon. carb. in .6 gm. doses, diluted with whisky 20 c. c., t. i. d. This had to be discontinued in a short time on account of the vomiting which it seemed to induce. Cocain hydrochlor. in .008 doses failed to relieve two violent attacks of singultus. This distressing symptom subsided each time promptly under amyl nitrite by inhalation. Cathartics were employed to relieve constipation, and acetanilid was used cautiously to relieve pyrexia. To sustain the heart strych. sulph. in .002 doses was employed hypodermically every 4 to 6 hours, as necessary.

Necropsy (three hours after death).—Body that of an adult white male, apparently 40 years of age, well developed and nourished. Lividity most marked over pendant portions of body. Rigidity in lower extremities. The body was warm. The median incision revealed a liberal amount of subcutaneous fat. Chest: Pericardium normal. The heart weighed 320 grams, and the ventricles were filled with white ante-mortem clots; valves normal, though a few atheromatous plaques occupied the aorta. The myocardium was normal. The right lung weighed 1,580 grams, the left 730. The two upper lobes of the right were covered anteriorly with a thick fibrous clot, and the same formation occupied the extreme lower margin of the right base anteriorly. All the lobes of both lungs were agglutinated by recent lymph. The whole right lung was carnified, stage of red hepatization, a shade of gray being noticeable in places. A small abscess occupied the extreme apex of the right lung, and the tissue surrounding it was soft and infiltrated. No portion of this lung would float in water. The lower lobe of the left lung showed pneumonic consolidation, stage of red hepatization. The upper lobe was congested throughout, though crepitant. Kidneys: The left weighed 210 grams, the right 190. The former had a small retention cyst in its upper and inner part above the pelvis. Both organs were much congested, blood escaping freely on section. The capsules were adherent in places. Liver: Weight, 1,870 grams; apparently normal, though the gall bladder was shrunken to one-fifth its normal size and contained three large impacted stones, completely occupying the cavity and partially occluding the duct. The spleen was soft and filled with blood. Weight, 220 grams. Pancreas normal and weighed 85 grams. Stomach and intestines normal.

F. J. T.
H. W. S.

CONTRIBUTED ARTICLES.

OBSERVATIONS OF SURGICAL CLINICS.

By Surg. George Tully Vaughan

After attending the meetings of the Association of Military Surgeons and the American Medical Association in St. Paul I went to Chicago and inspected the Service there. While in Chicago I took advantage of the opportunity to visit the clinics of some of the principal surgeons, and have the honor to give a short account of what I saw.

DR. CHRISTIAN FENGER.

I first visited the clinic of Dr. Fenger, a man beloved by all who know him, and a surgeon who commands respect throughout the world where surgery is practiced. Dr. Fenger uses rubber gloves in all of his operations and makes his assistants use them. He uses ether generally as an anæsthetic. He believes in the use of iodoform, in the use of iodine and in carbolic acid as applications to wounds when septic. The following are some of the cases I saw him treat:

[illegible] in a woman of about 50 years of age, following an infected wound of the right thumb which had not been treated by early and thorough incision. The pus extended along the sheath of the flexor longus pollicis [illegible] beneath the anterior annular ligament half way up the forearm. It was opened freely above and below the annular ligament, and rubber tubes were inserted for drainage.

[illegible] This case was a boy of about [illegible] years of age who had an attack of appendicitis, but when brought to Dr. Fenger the attack was [illegible] subsiding and he proceeded to wait for the interval before operating, so he advised him to remain in the hospital under observation, [illegible] understanding that any aggravation of the symptoms would be the signal for operative interference. This came three days after I first saw him in the shape of pain, elevation of temperature and acceleration of the pulse. Ether was given and McBurney's [illegible] incision was made, but later it was found necessary to enlarge the wound by cutting across some fibres of the [illegible] and transversalis muscles. On opening the peritoneum pus and serum with offensive odor escaped. The appendix was located behind the cecum, pointing upward, and required considerable dissection [illegible] adhesions attended with hemorrhage in order to extirpate it. It was perforated in two places near the [illegible] and contained a fecal concretion between the two perforations. It was tied off, the stump touched with carbolic acid [illegible] and the incision closed by means of a purse-string suture. The abscess cavity was sponged out with 5 per cent solution of carbolic acid and the peritoneal cavity which communicated with the abscess cavity was irrigated with normal salt solution. Two strips of iodoform gauze

were then packed in, one behind the cæcum, the other in front and to its inner side, the ends hanging out of the wound, which was packed with iodoform gauze and temporarily closed by means of silkworm gut sutures introduced through all the tissues and tied in bowknots over the gauze packing. The patient's pulse was 140 during the operation, but when last heard from, several days later, he was doing well.

Ponce's operation for tuberculosis of the testis.—This operation, devised by Ponce, of Lyons, has for its object the removal of the diseased portions of the testis without removing the organ itself, for the reason that although the procreative power may be lost (it is usually destroyed by the disease before the operation) the other functions of the testis which are thought to influence metabolism, somewhat like the thyroid gland, are preserved.

Operation: With the patient under ether, the left testis was bisected longitudinally. The chief seat of the disease was the epididymis, which contained considerable cheesy material, but on the cut surfaces of the body of the organ were a number of small whitish spots which looked like tuberculous deposits. They were removed and preserved for further examination. The epididymis and vas deferens were then dissected out up to the internal abdominal ring, where it was ligated with catgut and cut off. The inguinal canal was then closed with catgut and the two halves of the testis were united by the same kind of material. Dr. Fenger intended removing the left seminal vesicle, but the patient's condition at this stage caused him to postpone this operation. This patient's chief symptoms were: Family history of tuberculosis, hardness and enlargement of the left epididymis and cord, and some pain and frequency of micturition.

Operation for removing tuberculous glands of the neck.—This is a common operation, but Dr. Fenger does it in his own peculiar way. He lays emphasis on three points: (1) Take care of the internal jugular vein by finding it and placing a temporary ligature around it at the root of the neck; this keeps the vein distended with blood, so that it can be easily recognized during the dissection and avoided. (2) Find and take care of the spinal accessory nerve, cutting of which would cause the deformity known as "winged scapula," from paralysis of the trapezius muscle. (3) Take plenty of time to do the operation skillfully and thoroughly. An average case requires about two hours to complete the operation. He makes an incision from the mastoid process to the sterno-clavicular articulation over the sterno-cleido-mastoid muscle, which is not divided.

Dr. Fenger showed a case of exstrophy of the bladder in a young man, for which he had operated first by transplanting the right ureter with a small piece of the bladder into the cæcum, later the left ureter into the sigmoid flexure, then excision of what was left of the bladder. During the operation one of the vasa deferentia was accidentally cut in two, but was immediately sewed together. The proof that union followed was afforded by seeing semen escape from the mouth of that vas—the patient, of course, being epispadiac. The kidneys seemed to be in good condition.

DR. JOHN B. MURPHY.

The name of Murphy is connected with the name of the best mechanical device for intestinal anastomosis which has ever been invented, and is known throughout the world of intestinal surgery. Dr. Murphy believes in ether and the use of rubber gloves for his assistants, seldom wearing them himself. He and his assistants have gauze tied

their heads at l mouths, in order to protect the patients from ing from the l air and saliva from the mouth. Operations: *rgyst chaledechotomy.*—A physician, 46 years old, of full habit, n sick for more than a year—first from an infected wound of er, then jaundice and pain in the region of the liver, but no attack of biliary colic; his health became bad; there was some n of temperature and he lost considerably in weight; jaundice sent. Operation under ether. A piece of aseptic rubber plas- it 15 cm. square was carefully stuck to the skin over the site ntended incision This was to protect the abdominal cavity e skin, which is handled so much during operations. The n was opened through the right rectus muscle longitudinally, the rubber plaster and skin with scissors (as the plaster does well under the knife) and the remaining tissues with the knife. ision was later supplemented by a transverse one outward for cm., just below the ribs The gall bladder, thickened and ed, was finally felt, deep down, and a mass of calculus could in the common duct near the duodenum. By means of three long retractors, held by assistants, the walls were retracted so hard mass could be seen at the bottom of a deep cavity. ras carefully packed around the mass and the duct was incised linally over the stone Dark bile escaped, and was mopped up n it escaped. Forceps were then introduced, and a calculus cm long and 1½ cm in diameter, faceted on each end, was l. Two smaller stones were removed and the opening in the n closed with one row of continuous catgut sutures The gall was then attacked Two silk threads were passed through n and through the peritoneum, muscles, and skin on each gall bladder was opened between the threads, and three cal- re removed A large rubber drainage tube, just fitting the in the gall bladder, was then introduced and sewed to the the bladder with catgut A similar tube was introduced to at where the common duct had been sutured, as a safeguard it break open The gauze pads and strips were all removed hree long iodoform strips The wound was then closed with continuous suture, one row for the peritoneum, one for the , and a subcuticular one for the skin, leaving enough space tubes to project The time of coagulability of this patient's n determined just before the operation, was just five minutes seen longer the operation, would have been contraindicated on of the danger from hemorrhage

Secondary operation for gallstones.—A man, aged 4[illegible] years, had had cystotomy performed on him six weeks before and of calculi l His jaundice disappeared but there had been a continual ge of mucus through the sinus ever since No bile was dis externally, so the inference was drawn that a calculus blocked he duct The operation was performed through uninfected first, the sinus leading to the gall bladder was packed with a ip of iodoform gauze, then the abdomen was opened by a lon al incision through the rectus muscle to the left of the fistula, ner side By palpation through this incision a stone was felt ystic duct and was removed by means of forceps in the sinus, y the finger in the abdominal cavity The new wound was and the fistula left in full confidence that it would now heal urphy showed three other cases of gallstones on which he had operated

No. 1. A man of middle age on whom a cholecystotomy had been performed two or three weeks before and gallstones removed, but one in the cystic duct, which was difficult to remove, was left, as no doubt was felt that it could be more easily removed at a later date. On examination with a probe the stone could be felt at a depth of about 7½ cm., and by means of a long speculum it was visible. It was removed by passing a long handled hook through the speculum, fixing it in the stone, and removing speculum, hook, and tenaculum all at the same time. The stone was about 1 cm. in diameter. A second smaller stone was removed in fragments.

No. 2. Cholecystostomy: A middle-aged woman operated on three weeks before, several stones removed, and the gall bladder attached to the abdominal wall, first by a row of sutures through the outer coats of the bladder some distance, say 1 cm., from the edge of the opening and the peritoneum and muscle; then a strip of iodoform gauze was carefully packed around the opening, between it and the row of sutures. A second row of sutures attached the edges of the opening in the gall bladder to the skin, thus leaving a "collar" of gauze between the two rows of sutures, which prevents adhesion forming between the bladder and abdominal wall, so that when the proper time comes for closure of the fistula the adhesions between the skin and edges of the gall bladder are cut and the gauze "collar" removed, which permits the gall bladder to retract from the abdominal wall, so that the edges come together and union and closure of the opening more readily occur. In the case under discussion the doctor cut the adhesions between skin and bladder as just described, removed the gauze "collar," and then packed iodoform gauze between the receded edges of the bladder and the abdominal wall, to permit healing without attachment to the skin.

No. 3. Cholecyst-enterostomy: This case was a man, aged 65, operated on two weeks before for obstructive jaundice, caused by cancer of the head of the pancreas. A small Murphy button was used to make an anastomosis between the gall bladder and the jejunum. The button came away in ten days, the jaundice disappeared, and the patient was improved.

Excision of right Gasserian ganglion.—This operation was performed on a man of about forty-five years of age for trifacial neuralgia of the right side. Ether was given, and the usual omega-shaped osteoplastic flap, about 7 cm. in diameter, with its neck opposite the zygoma, was made, first cutting through the soft tissues, then making a small trephine opening in order to start a Devilbiss bone cutter with which the bone was cut, aided by a chisel, in the vicinity of the zygoma. The flap was pried outward until it broke along the "neck." An artery was then ligated, the middle meningeal or a branch, and the dura carefully separated from the floor of the middle fossa—the brain being held up by metal retractors under the dura—until the third, and then the second, branch of the fifth nerve were seen entering their respective foramina. The nerves were traced to their convergence in the ganglion and the latter exposed by stripping the upper layer of dura back. The nerves were then caught up by forceps and divided with scissors at the margin of their foramina. The ganglion was then removed by rotating the two pairs of forceps which were attached to the cut nerves, bringing it out by the roots and in its entirety—showing the point where the first division broke off. There was considerable hemorrhage at this time, but it was soon controlled by pressure. The cavernous sinus did not seem to be injured. The after

treatment was to pack a long strip of iodoform gauze beneath the dura, having an end projecting, by which it was to be removed in forty-eight or seventy-two hours. The osteoplastic flap was returned to its place and held there by a kangaroo-tendon suture through holes drilled in the summit of the flap. The soft parts were united by a deep row of catgut and a superficial row of silkworm gut sutures except where the gauze protruded. No extra precautions were taken for the protection of the eye on that side except to keep it clean and free from foreign matter.

DR. A. J. OCHSNER.

Though a young man, Dr. Ochsner is one of Chicago's best known surgeons. He operates at the Augustana Hospital, where he has a wealth of material. Dr. Ochsner did not use gloves in the operations I saw him perform, but his assistants did.

From Dr. Ochsner's operations the following are selected as of special interest:

Cholecystectomy.—A man of fifty or sixty years had an attack of biliary colic a month ago, with slight jaundice. He was treated with olive oil and got better, but Dr. Ochsner thinks there is still a cholecystitis. Ether was given and the abdomen opened by a longitudinal incision through the right rectus muscle. The common and cystic ducts were first examined, with a negative result, then the gall bladder, in which stones were felt, and preparations were made to open it. A long strip (about [illegible] meters) of sterile gauze was packed into the abdominal cavity just below the gall bladder, other smaller strips on the sides, and finally several thin, wet pads of absorbent cotton were placed under the gall bladder and next to it to catch the bile after the opening had been made. The bladder was held between two forceps, opened with a knife, and the escaping bile sopped up with cotton pads as fast as it escaped. A catheter was then passed and a large, dark colored calculus, in two pieces and somewhat soft, was removed. After cleaning out the gall bladder it was temporarily packed with gauze to prevent leaking and then attached to the abdominal wall by interrupted catgut sutures, passing through the walls of the gall bladder about [illegible] from the edge of the opening and through the parietal peritoneum and muscle beneath. The packing in the bladder was then removed and clean iodoform gauze substituted, and the wound dressed. Dr. Ochsner prefers not to sew up a gall bladder or duct, but to provide drainage in all cases.

Epithelioma of the leg.—A man between [illegible] and seventy years of age had long had an ulcer of the left leg and recently an epithelioma developed on it. Under ether and the [illegible] Esmarch constrictor the ulcer and tumor were removed by means of the knife and chisel and the bone surface cauterized with the [illegible]. A wound was left about [illegible] long and [illegible] the circumference of the leg, the anterior of the [illegible] of the leg. Incisions were then made [illegible] relieve the œdema and cut off the [illegible] parts were dressed with bichloride gauze [illegible] batting, the Esmarch constrictor was not to be removed [illegible] patient returned to bed, the leg was [illegible] and gradually lowered to the horizontal position.

Dr. Ochsner said the leg would get well, and it was not necessary to amputate.

Dr. Ochsner stated that he had seen good results follow the use of chloride of calcium in dram doses every four to six hours for hemorrhagia. Mayo-Robson uses the same treatment for hemorrhage in jaundiced patients.

DR. M. L. HARRIS.

Dr. Harris has displayed great ingenuity in the invention of an instrument known as a "urinary segregator" which collects the urine from each ureter separately without having to resort to the difficult operation of catheterizing the ureters. The essential parts of the instrument are a double-barreled silver catheter with about as much curve as a female catheter, each capable of rotation on its horizontal axis. To this is attached a metal lever arranged so that when the catheter is in the bladder and the lever in the rectum (or vagina in the female), with the beaks of the catheter rotated outward and downward, the bladder is pressed up between the openings of the ureters, making a pouch for each ureter, into which the corresponding catheter dips. For a full description of this instrument, see The International Text-Book of Surgery, volume 2, page 567.

Dr. Harris used it quite easily and satisfactorily in the case of a female patient.

Dr. Harris and other surgeons have had very good results in the treatment of tuberculous bones and joints by opening and curetting the tuberculous foci, then stuffing them for a minute or two with gauze saturated with pure carbolic acid, then substituting gauze saturated with alcohol, and finally iodoform gauze, which is left in and changed as may be necessary.

DR. A. D. BEVAN.

Among the most promising of the younger surgeons in Chicago is Dr. Arthur D. Bevan, formerly passed assistant surgeon in the Marine-Hospital Service. Dr. Bevan has done some excellent work in connection with stone in the kidney and its detection by means of the Roentgen ray. I saw the Doctor perform an operation for prolapsus recti—a resection of the bowel—in a woman over sixty years of age. The protrusion through the anus was about 8 cm., involving the entire circumference of the gut and including all the coats except the peritoneal, which was attached at a higher point. The edges of the protruding "cuff" were caught with forceps at four equidistant points, and interrupted silk sutures were then introduced all the way around a little below the anus. The portion of the "cuff" below the sutures was then cut off, the mucous membrane united with a continuous silk suture, and the intestine returned within the sphincter.

DR. ROSWELL PARK.

Dr. Roswell Park, of Buffalo, N. Y., is too well known as original worker, teacher, and writer to need any introduction. He does not always wear gloves in operating, but requires his assistants to use them—rubber or cotton may be used. Dr. Park introduced mustard as an efficient disinfectant in preparing the hands for surgical operations. He first cleanses with soap and water, then rubs flour of mustard wet with cold water (hot water must not be used with the mustard, as it destroys the essential oil on which the germicidal properties depend) on the hands thoroughly for two or three minutes, then rinses

an solution of bichloride. As a dressing for wounds he uses subnitrate of bismuth a great deal. He uses both anæsthetics, selecting chloroform or ether according to the indications.

Among the operations I saw him perform were the following.

Removal of the breast for cancer. The usual incision, elliptical around the breast and extending into the axilla, was made. Part of the pectoralis major muscle was removed, and the axilla was quickly and carefully dissected. The wound was closed by means of three interrupted gut tension sutures and continuous subcuticular catgut. Drainage was provided by cutting a hole through the flap in the axillary region and introducing a rubber tube. Subnitrate of bismuth was then dusted on the wound, a piece of gauze covered with sterile vaseline applied next, and the usual dressing of gauze and cotton over this.

Amputation at shoulder joint. This was the case of a veteran of the civil war, who lost his left arm just below the shoulder in 1862. For several years past he has suffered severely from neuralgic pains in the stump and sometimes extending to the chest. The stump was painfully sensitive, and three small hard tumors could be felt on the inner side and near the end of the stump. The bone also seemed enlarged. So it was decided best to amputate at the shoulder joint. This was done by an operation something like Larrey's, only made on the inner side, as the Doctor opened the axilla first in order to examine the nerves, which seemed to be enlarged above the tumors. Catgut ligatures and sutures were used to close the wound, drainage was provided for by a rubber tube, and subnitrate of bismuth and iodized vaseline were applied with the dressings.

OBSERVATIONS OF SURGICAL CLINICS

By Sgt. Gordon Terry Vaughan

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Operation: With the patient under ether, the left testis was bisected longitudinally. The chief seat of the disease was the epididymis, which contained considerable cheesy material, but on the cut surfaces of the body of the organ were a number of small whitish spots which looked like tuberculous deposits. They were removed and preserved for further examination. The epididymis and vas deferens were then dissected out up to the internal abdominal ring, where it was ligated with catgut and cut off. The inguinal canal was then closed with catgut and the two halves of the testis were united by the same kind of material. Dr. Fenger intended removing the left seminal vesicle, but the patient's condition at this stage caused him to postpone this operation. This patient's chief symptoms were: Family history of tuberculosis, hardness and enlargement of the left epididymis and cord, and some pain and frequency of micturition.

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[illegible] heads and mouths, in order to protect the patients from [illegible] from the hair and saliva from the mouth. Operations [illegible] *[illegible]*. A physician, [illegible] years old, of full habit, [illegible] sick for more than a year, first from an infected wound of [illegible], then jaundice and pain in the region of the liver, but no [illegible] attack of biliary colic; his health became bad, there was some [illegible] of temperature and he lost considerably in weight, jaundice [illegible] operation under ether. A piece of aseptic rubber plas[illegible] square was carefully stuck to the skin over the [illegible] anesthetized [illegible]. This was to protect the abdominal cavity [illegible] which is handled so much during operations. The [illegible] was opened through the right rectus [illegible] longitudinally, [illegible] plaster and skin [illegible] the posterior [illegible] the knife [illegible] was later supplemented by a [illegible] outward for [illegible] below the ribs. The gall bladder [illegible] and [illegible] was finally felt, deep down, and [illegible] could [illegible] the common duct near the duodenum. [illegible] hold by assistants [illegible] was [illegible] hard mass could be seen at the [illegible] was carefully packed around [illegible] was turned [illegible] over the stomach. Dark [illegible] was mopped up [illegible]. Forceps were [illegible] and a [illegible] was [illegible] and [illegible] was [illegible] [illegible] was [illegible] attached. [illegible] through the [illegible] through the [illegible] gall bladder was opened [illegible] A [illegible] gall bladder was [illegible] of the bladder [illegible] the [illegible] was opened. The [illegible] pads and [illegible] was [illegible] with [illegible] space [illegible] to protect. The [illegible] patient's [illegible] before the operation was [illegible] minutes [illegible] longer the operation would have been contraindicated on [illegible] the danger from hemorrhage.

[illegible] A man, aged 44 years, had had [illegible] performed on him six weeks before and 52 calculi [illegible]. His jaundice disappeared but there had been a con[illegible] of bile through the sinus ever since. No bile was [illegible] stools, so the inference was drawn that a calculus [illegible] [illegible]. The operation was performed through under [illegible] the sinus leading to the gall bladder was packed [illegible] of iodoform gauze, then the abdomen was opened by [illegible] through the rectus muscle to the left of the [illegible] side. By palpation through this incision a stone [illegible] cystic duct and was removed by means of forceps in[illegible] by the finger in the abdominal cavity. The new [illegible] and the fistula left in full confidence that it would [illegible] Murphy showed three other cases of gallstones on [illegible] y operated.

No. 1. A man of middle age on whom a cholecystotomy had been performed two or three weeks before and gallstones removed, but one in the cystic duct, which was difficult to remove, was left, as no doubt was felt that it could be more easily removed at a later date. On examination with a probe the stone could be felt at a depth of about 7½ cm., and by means of a long speculum it was visible. It was removed by passing a long handled hook through the speculum, fixing it in the stone, and removing speculum, hook, and tenaculum all at the same time. The stone was about 1 cm. in diameter. A second smaller stone was removed in fragments.

No. 2. Cholecystostomy: A middle-aged woman operated on three weeks before, several stones removed, and the gall bladder attached to the abdominal wall, first by a row of sutures through the outer coats of the bladder some distance, say 1 cm., from the edge of the opening and the peritoneum and muscle; then a strip of iodoform gauze was carefully packed around the opening, between it and the row of sutures. A second row of sutures attached the edges of the opening in the gall bladder to the skin, thus leaving a "collar" of gauze between the two rows of sutures, which prevents adhesion forming between the bladder and abdominal wall, so that when the proper time comes for closure of the fistula the adhesions between the skin and edges of the gall bladder are cut and the gauze "collar" removed, which permits the gall bladder to retract from the abdominal wall, so that the edges come together and union and closure of the opening more readily occur. In the case under discussion the doctor cut the adhesions between skin and bladder as just described, removed the gauze "collar," and then packed iodoform gauze between the receded edges of the bladder and the abdominal wall, to permit healing without attachment to the skin.

No. 3. Cholecyst-enterostomy: This case was a man, aged 65, operated on two weeks before for obstructive jaundice, caused by cancer of the head of the pancreas. A small Murphy button was used to make an anastomosis between the gall bladder and the jejunum. The button came away in ten days, the jaundice disappeared, and the patient was improved.

Excision of right Gasserian ganglion.—This operation was performed on a man of about forty-five years of age for trifacial neuralgia of the right side. Ether was given, and the usual omega-shaped osteoplastic flap, about 7 cm. in diameter, with its neck opposite the zygoma, was made, first cutting through the soft tissues, then making a small trephine opening in order to start a Devilbiss bone cutter with which the bone was cut, aided by a chisel, in the vicinity of the zygoma. The flap was pried outward until it broke along the "neck." An artery was then ligated, the middle meningeal or a branch, and the dura carefully separated from the floor of the middle fossa—the brain being held up by metal retractors under the dura—until the third, and then the second, branch of the fifth nerve were seen entering their respective foramina. The nerves were traced to their convergence in the ganglion and the latter exposed by stripping the upper layer of dura back. The nerves were then caught up by forceps and divided with scissors at the margin of their foramina. The ganglion was then removed by rotating the two pairs of forceps which were attached to the cut nerves, bringing it out by the roots and in its entirety—showing the point where the first division broke off. There was considerable hemorrhage at this time, but it was soon controlled by pressure. The cavernous sinus did not seem to be injured. The after

it was to pack a long strip of iodoform gauze beneath the [illegible] an end projecting, by which it was to be removed in [illegible] or seventy-two hours. The osteoplastic flap was returned [illegible] and held there by a kangaroo-tendon suture through holes [illegible] the summit of the flap. The soft parts were united by a [illegible] of catgut and a superficial row of silkworm gut sutures [illegible] the gauze protruded. No extra precautions were taken [illegible] protection of the eye on that side except to keep it clean and [illegible] foreign matter.

DR. [illegible] OCHSNER.

[illegible] a young man, Dr. Ochsner is one of Chicago's best known [illegible]. He operates at the Augustana Hospital, where he has a [illegible]. Dr. Ochsner did not use gloves in the operations [illegible] but his assistants did.

Dr. Ochsner's operations the following are selected as of [illegible]:

[illegible] A man of fifty or sixty years had an attack of [illegible] a month ago, with slight jaundice. He was treated with [illegible] but Dr. Ochsner thinks there is still a chole-[illegible]. Ether was given and the abdomen opened by a longitudinal [illegible] through the right rectus muscle. The common and cystic [illegible] were examined, with a negative result, then the gall blad-[illegible] was found and preparations were made to open it. [illegible] inches of iodoform gauze was packed into the [illegible] below the gall bladder, other smaller strips on [illegible] several thicknesses, wet pads of absorbent cotton [illegible] under the gall bladder and next to it to catch the bile [illegible] had been made. The bladder was held between two [illegible] and the wound was stopped up with [illegible] as fast as it escaped. A cuffette was then [illegible], and [illegible], in two pieces and somewhat soft, was [illegible]. After [illegible] the gall bladder it was temporarily [illegible] to prevent leaking and then attached to the [illegible] interrupted catgut sutures, passing through the [illegible] gall bladder about [illegible] from the edge of the opening [illegible] parietal peritoneum and muscle beneath. The pack [illegible] was then removed and clean [illegible] wound dressed. Dr. Ochsner prefers not to sew up [illegible], but to provide drainage in such cases.

[illegible] A man between [illegible] and seventy [illegible] had long had an ulcer of the left [illegible] and recently an [illegible] developed on it. Under ether and [illegible] Esmarch [illegible] and tumor were removed by [illegible] the knife [illegible] the bone surface cauterized with [illegible] was [illegible] about [illegible] long and [illegible] the [illegible] of the leg, the interior of the [illegible] leg. Incisions were then made above and [illegible] the edema and cut off the venous stasis [illegible]. The [illegible] dressed with bichloride gauze and [illegible] cotton [illegible] the Esmarch constriction was not to be removed until [illegible] returned to bed, the leg was to be kept straight [illegible] gradually lowered to the horizontal position.

[illegible] said the leg would get well and [illegible] [illegible] amputate.

Dr. Ochsner stated that he had seen good results follow the use of chloride of calcium in dram doses every four to six hours for hemorrhagia. Mayo-Robson uses the same treatment for hemorrhage in jaundiced patients.

DR. M. L. HARRIS.

Dr. Harris has displayed great ingenuity in the invention of an instrument known as a "urinary segregator" which collects the urine from each ureter separately without having to resort to the difficult operation of catheterizing the ureters. The essential parts of the instrument are a double-barreled silver catheter with about as much curve as a female catheter, each capable of rotation on its horizontal axis. To this is attached a metal lever arranged so that when the catheter is in the bladder and the lever in the rectum (or vagina in the female), with the beaks of the catheter rotated outward and downward, the bladder is pressed up between the openings of the ureters, making a pouch for each ureter, into which the corresponding catheter dips. For a full description of this instrument, see The International Text-Book of Surgery, volume 2, page 567.

Dr. Harris used it quite easily and satisfactorily in the case of a female patient.

Dr. Harris and other surgeons have had very good results in the treatment of tuberculous bones and joints by opening and curetting the tuberculous foci, then stuffing them for a minute or two with gauze saturated with pure carbolic acid, then substituting gauze saturated with alcohol, and finally iodoform gauze, which is left in and changed as may be necessary.

DR. A. D. BEVAN.

Among the most promising of the younger surgeons in Chicago is Dr. Arthur D. Bevan, formerly passed assistant surgeon in the Marine-Hospital Service. Dr. Bevan has done some excellent work in connection with stone in the kidney and its detection by means of the Roentgen ray. I saw the Doctor perform an operation for prolapsus recti—a resection of the bowel—in a woman over sixty years of age. The protrusion through the anus was about 8 cm., involving the entire circumference of the gut and including all the coats except the peritoneal, which was attached at a higher point. The edges of the protruding "cuff" were caught with forceps at four equidistant points, and interrupted silk sutures were then introduced all the way around a little below the anus. The portion of the "cuff" below the sutures was then cut off, the mucous membrane united with a continuous silk suture, and the intestine returned within the sphincter.

DR. ROSWELL PARK.

Dr. Roswell Park, of Buffalo, N. Y., is too well known as original worker, teacher, and writer to need any introduction. He does not always wear gloves in operating, but requires his assistants to use them—rubber or cotton may be used. Dr. Park introduced mustard as an efficient disinfectant in preparing the hands for surgical operations. He first cleanses with soap and water, then rubs flour of mustard wet with cold water (hot water must not be used with the mustard, as it destroys the essential oil on which the germicidal properties depend) on the hands thoroughly for two or three minutes, then rinses

a solution of bichloride. As a dressing for wounds he uses subnitrate of bismuth a great deal. He uses both anæsthetics, selecting chloroform or ether according to the indications.

Among the operations I saw him perform were the following:

Amputation of the breast for cancer. The usual incision, elliptical around the breast and extending into the axilla, was made. Part of the pectoralis major muscle was removed, and the axilla was quickly and carefully dissected. The wound was closed by means of three interrupted gut tension sutures and continuous subcuticular catgut. Drainage was provided by cutting a hole through the flap in the axillary region and introducing a rubber tube. Subiodide of bismuth was then dusted on the wound, a piece of gauze covered with sterilized vaseline applied next, and the usual dressing of gauze and cotton over this.

Amputation at shoulder joint.—This was the case of a veteran of the civil war, who lost his left arm just below the shoulder in 1862. For several years past he has suffered severely from neuralgic pains in the stump and sometimes extending to the chest. The stump was acutely sensitive, and three small hard tumors could be felt on the inner side and near the end of the stump. The bone also seemed diseased. So it was decided best to amputate at the shoulder joint. This was done by an operation something like Larrey's, only made on the inner side, as the Doctor opened the axilla first in order to trace the nerves, which seemed to be enlarged above the tumors. Catgut ligatures and sutures were used to close the wound, drainage provided for by a rubber tube, and subiodide of bismuth and iodized vaseline were applied with the dressings.

THE UNITED STATES MARINE-HOSPITAL SERVICE.

By P. A. Surg. M. J. Rosenau.

The Marine-Hospital Service receives its name from the fact that it has charge of the marine hospitals which are located at our ports for the treatment of sick and disabled seamen of the merchant marine. It has by law, however, many other duties and functions, particularly the conduct of quarantine, the management of epidemics, the medical inspection of immigrants, the maintenance of a hygienic laboratory, the investigation of sanitary problems, and other matters concerning the public health.

The Marine-Hospital Service is a Bureau under the Treasury Department, and is conducted by a Surgeon-General with a staff of assistants in charge of the various divisions.

The marine hospitals are maintained by a tax imposed on tonnage. The expense of the national quarantines is paid by appropriations of Congress, and the cost of suppressing epidemics is paid from a special fund set aside by Congress for this purpose.

HISTORICAL.

Marine hospitals existed in the early days of our country under charters granted by King George III, but the Marine-Hospital Service proper dates from July 16, 1798, when Congress passed an act for the relief of sick and disabled seamen, creating a fund for this purpose designated "The Marine-Hospital fund." The benefits of these hospitals were extended to sailors in the U. S. Navy until 1811, when Congress authorized separate naval hospitals.

In 1871 the Service was reorganized and the position of Supervising Surgeon-General created. Since that time the Marine-Hospital Service has outgrown its name, for, in addition to conducting marine hospitals, Congress has from time to time imposed upon it additional duties and responsibilities, and its activities have been so extended and its functions so multiplied that its work is now that of a national board of health or public health service.

PERSONNEL.

The Marine-Hospital Service at present consists of a Surgeon-General, 29 surgeons, 21 passed assistant surgeons, and 56 assistant surgeons—107 commissioned officers, who are appointed by the President by and with the consent of the Senate. In order to become a commissioned officer of the Service it is necessary to pass a competitive examination before a board composed of officers of the Service. Officers of the Service are not appointed to any special station, but are subject to change of station at any time in compliance with orders.

There are 129 acting assistant surgeons, appointed by the Secretary

[illegible] for duty at ports where the amount of work does not [illegible] of a commissioned officer.

[illegible] corps of [illegible] pharmacists in the Service known officially [illegible] In addition to their professional work they have impor[illegible] duties.

MARINE HOSPITALS.

[illegible] United States marine hospitals and 115 additional [illegible] in the various ports of the country. These hospitals [illegible] with the Atlantic and Pacific seaboards, on the Gulf [illegible] the chain of Great Lakes, and at many of the larger [illegible] A new hospital has lately been opened in Alaska, and [illegible] have been established at San Juan and Ponce, in Porto Rico, [illegible] Honolulu.

[illegible] SEAMEN TREATED A YEAR.

[illegible] reports of the Service show that more than [illegible] sick and dis[illegible] the merchant marine are treated annually. For [illegible] the past fiscal year [illegible] seamen were treated, of [illegible] were treated in hospitals. There were 1,580 [illegible] operations performed during the year, requiring [illegible] anesthetics.

SANATORIUM FOR CONSUMPTIVES.

[illegible] consumptive seamen has been established at Fort [illegible] N. Mex., in the heart of the city, equable climate which [illegible] the unfortunates who have contracted this most [illegible] modern scourges. The sanatorium was opened for [illegible] patients November [illegible], and to April 1, [illegible], [illegible] patients admitted, transferred from the several [illegible] of whom [illegible] were discharged as recovered, [illegible] [illegible] of tuberculosis of the lungs, the disease having [illegible] for the patients to be benefited by the change.

[illegible] also for a purpose. It gives the consumptive [illegible] chance to recover that is known to modern [illegible] the source of infection of the forecastle. In this [illegible] the spread of the disease. The well are protected [illegible] The sanatorium has so far been conducted [illegible] accomplishing the results anticipated.

DIVISION OF DOMESTIC QUARANTINE.

[illegible] of the duties of the division of quarantine to keep infec[illegible] diseases out of the country. It is responsible [illegible] of the national quarantines and the supervision [illegible] State and local quarantines.

[illegible] coming from a foreign port must pass [illegible] and have the [illegible] quarantine officer [illegible] submitted to any of the [illegible] The vessels are [illegible] as to its sanitary condition by the quarantine officer, [illegible] examines into the health of the crew and passengers. The quar[illegible] officer obtains much useful information from the bills of health [illegible] the papers which the captain of the vessel is obliged to present.

In case any one on board is suffering with a contagious disease, he is cared for in special isolated hospitals which are maintained at all national quarantine stations. During the past year 4,522 vessels were inspected at the national quarantines. Cases of yellow fever, smallpox, leprosy, scarlet fever, diphtheria, etc., were diagnosed and isolated so successfully as to keep the infection from spreading.

DIVISION OF FOREIGN AND INSULAR QUARANTINE.

In order to assist the home quarantines an inspection and information service is maintained at some of the foreign ports, especially those where epidemics exist or infectious diseases are apt to prevail. It is the duty of the officers of the Service stationed at these points to issue the bills of health to vessels leaving for the United States. They carefully examine the sanitary condition of the vessel and its passengers, especially the emigrants, who have so often carried epidemic diseases from one country to another. These officers also keep the authorities at the home ports notified of all matters abroad that might affect the public health at home.

THE SANITARY INSPECTION SERVICE.

For instance, sanitary inspectors are stationed at Hongkong and Yokohama, whose duty it is to keep plague and cholera, which are now prevailing in the Orient, from vessels bound for the United States. Sanitary inspectors are also on duty at all the Central and South American harbors where yellow fever is endemic, and they have accomplished much in keeping this fever from spreading to our country.

During the cholera epidemic in Hamburg in 1892 and 1893, and during the epidemic of plague at Glasgow last year, and at other ports of the world that have or are liable to have outbreaks of contagious disease, officers of the Marine-Hospital Service are stationed for the purpose named.

THE INSULAR QUARANTINES.

Maritime quarantines have also been established in Cuba, Porto Rico, the Philippines, and Hawaiian Islands. Very much has already been accomplished by this division of the Service in our insular possessions in helping to stamp out the endemic diseases which have so long been a scourge to some of them, and in preventing the spread of these dreaded diseases to the United States, despite the increased amount of traffic and communication which has grown up between the islands and the United States.

The doctor who battles against the microbe is not as picturesque nor as romantic a figure as the soldier who dies fighting on the field of battle, though each may be fighting to save his country against an invading foe. Bacteria are as deadly as bullets, and many a medical officer has fallen from the infection of disease in saving his fellow-men.

INTERSTATE QUARANTINES.

Congress imposed upon the Marine-Hospital Service in the law of February 15, 1893, the duty of preventing the spread of contagious

ifectious diseases from one State or Territory to another State ritory This responsible trust has entailed an elaborate system estate quarantine regulations, and in order to fulfill this duty ly the Service has trained a corps of its officers in the handling lemics, in which work some of them have been so successful as e gained widespread reputation as sanitarians.

DETENTION CAMPS

prevention of the spread of yellow fever has been one of the works of the Marine-Hospital Service since Congress passed the ate quarantine law The object of a detention camp is to per- rsons to travel from an infected area without carrying the dis- healthy towns or places. A model of one of the detention of the Service is shown in the exhibit Persons from yellow- stricken towns are received and their clothing disinfected. are then held for a period covering the stage of incubation of ease After this they may go to any place without danger of ing the infection

AID TO OTHER SERVICES

Marine-Hospital Service is required by law and regulation to l aid of a professional character to other services of the Govern- especially the Life-Saving Service, the Revenue-Cutter Service, amboat Inspection Service, the Coast and Geodetic Survey, the House Establishment, the Immigration Bureau, etc.

AID TO THE IMMIGRATION SERVICE

immigrants coming into our country must be examined by a n of the Marine-Hospital Service, whose duty it is to detect suffering from a dangerous, contagious, or loathsome disease. ch cases are either sent back to their homes or are kept isolated parate hospital until they are cured and free from the danger ieying infection Lepers under no circumstances are allowed er the United States, and several such are discovered and ed each year

immigrant who is suffering from a disease that is apt to render public charge within a year must be deported unless he has family nds to assume the responsibility of taking care of him This of cases formerly taxed the capacity of our almshouses and filled ic hospitals, and the enforcement of this measure has saved institutions for the sick and needy of our own country

fiscal year 118,572 immigrants were inspected medically by s of the Marine-Hospital Service

New York where so many immigrants arrive, there is a hospital for the care of sick immigrants who are held under observa This branch of the Service at New York requires eight medical s and a steward

cal officers of the Marine-Hospital Service stationed at Phila a Boston, Baltimore, New Orleans, San Francisco, and other where immigrants occasionally arrive are required, in addition r other duties, to examine them

AID TO THE LIFE-SAVING SERVICE.

All surfmen who desire to enter the Life-Saving Service are examined by surgeons of the Marine-Hospital Service as to their physical fitness. During the past fiscal year 1,467 surfmen and keepers were examined, of whom 75 were found to be physically unfit for the arduous duties required of them.

AID TO THE REVENUE-CUTTER SERVICE.

During the past fiscal year 977 applicants for enlistment into the Revenue-Cutter Service were examined, of whom 98 were rejected. Occasionally officers of the Service are detailed as surgeons upon revenue cutters when ordered on long cruises. The officers and enlisted men of this Service are entitled to the benefits of the marine hospitals.

AID TO THE STEAMBOAT-INSPECTION SERVICE.

No person can become a licensed pilot unless he has good eyesight, and he must obtain a certificate to this effect from a marine-hospital surgeon before the license can be granted. During the past fiscal year 2,457 applicants for pilots' licenses were examined as to their eyesight, and especially as to color blindness.

No fees are charged for these examinations, nor for any other service required of officers of the Service.

DIVISION OF SANITARY REPORTS AND STATISTICS.

This division, under the charge of a medical officer of the Service, is chiefly concerned in the collection of sanitary information and in the compilation of such matter for publication, weekly, in the Public Health Reports. This publication has a circulation of about 3,500 among quarantine officers, sanitarians, boards of health, and the health authorities of our own and foreign lands. It contains information of the existence of and progress of epidemic disease, mortality tables of our own and foreign cities, and reports and information for the guidance of those engaged in work affecting the public health. For this purpose tables showing the prevalence of smallpox in the United States, and of yellow fever, cholera, and plague throughout the world, are published every week.

Our consuls are required to send monthly reports to the Surgeon-General of the health conditions and other matters of sanitary interest occurring in their consular districts. In this way the Service keeps in touch with the health conditions of the whole world.

The Public Health Reports also shows the movement of emigration and immigration and keeps track of this class of travelers, who are so apt to carry infectious disease.

HYGIENIC LABORATORY.

The hygienic laboratory is engaged in scientific work which has a particular bearing upon the public health. It is in charge of a director, who is an officer of the Service, and several assistants. The investigations of this branch of the Service consist of studies into the cause and methods of spread of infectious diseases, of the value and strength of disinfectants, of the value of vaccines, of the method of manufacture of antitoxic serums, the pollution of water supplies, etc. During

[illegible] year the hygienic laboratory made and distributed over [illegible] of a vaccine against bubonic plague, which were distrib[illegible] to the Philippines, to Honolulu, and to San Francisco. Bulle[illegible] issued from time to time giving the results of the work done [illegible] laboratory.

[illegible] following list of subjects is given to illustrate the scope and [illegible] of the research work carried on in the hygienic laboratory. [illegible] includes studies of the organisms of malarial and typhoid [illegible] of the cause of smallpox and the serum therapy of that dis[illegible] the preparation of the antitoxin for diphtheria, an investiga[illegible] of the pollution of the water supply of the District of Columbia; [illegible] of cases and suspected cases of cholera, leprosy, and [illegible] report upon the ventilation of the House of Representa[illegible] the disinfection of the railroad coach, the serum therapy of [illegible] and typhoid fever, etc.

[illegible] for [illegible] apparatus of ingenuity and great value have been [illegible] by officers of the Service on duty in the hygienic laboratory. [illegible] are now used by sanitarians in all parts of the world. [illegible] has recognized the value of the work done by this branch of [illegible] appropriating money for a new laboratory building, [illegible] progress of construction, and which under the terms [illegible] for the investigation of infectious and contagious dis[illegible] pertaining to the public health."

[illegible] the great importance of the subject of bacteriology in [illegible] public health, it has been one of the duties of the [illegible] officers of the Service and others in [illegible] The Service now numbers among its officers [illegible] skilled [illegible], the experience of some of whom is very wide in the [illegible] infectious and contagious diseases and in the [illegible] of sanitary problems.

THE LEPROSY COMMISSION.

[illegible] passed an act for the investigation of leprosy in the United [illegible] authorizing the appointment of a commission of medical [illegible] Marine-Hospital Service to investigate the origin and [illegible] of leprosy in the United States and to report upon what [illegible] necessary for the prevention of the spread of this dis[illegible]

[illegible] officers of the Service were appointed as the members of the [illegible] commission, and they have since pursued their studies on this [illegible] and soon presented their report.

THE YELLOW FEVER COMMISSION.

[illegible] President appointed two officers of the Service as a [illegible] to investigate the cause of yellow fever. The commission [illegible] part of two years in Havana and [illegible] the disease prevailed. The report has thrown [illegible] light upon the cause and methods of spread of yellow [illegible] which has baffled many investigators.

THE QUARANTINE SERVICE.

[illegible] quarantine depot is now established in New York and [illegible] agents of the Service. Through the depot the marine hospitals [illegible]

and quarantine stations, both in the United States and in Habana, Cuba, Porto Rico, and to a limited extent the Philippines, have received their supplies. Purveying has also been done for the Immigration Service and the Revenue-Cutter Service. More than 11,000 packages were shipped during the past fiscal year, weighing about 600,000 pounds.

PUBLICATIONS OF THE SERVICE.

The Surgeon-General publishes annually a report in which are detailed the operations of the Service for the fiscal year. It also contains reports and articles of interest from the officers of the Service on medical and sanitary subjects.

The Public Health Reports is published weekly.

The hygienic laboratory publishes bulletins from time to time on the scientific work which it accomplishes. Some of these bulletins are upon "The viability of the bacillus pestis," "Sulphur dioxide as a germicidal agent," "Formaldehyde disinfection without apparatus," etc.

The foregoing is the merest outline of the growth, scope, and duties of the Marine-Hospital Service, the greater part of which growth has come about within the last ten years. The growth of the Service has kept pace with that of the country. With the increase of the American merchant fleet the recipients of its benefits have constantly increased in number, and in the management of its hospitals advantage has been taken of every new development of modern medicine, surgery, and hygiene. The investigation of the causes and prevention of epidemic diseases is a subject of constant study within the Service, and every day brings to light some new problem in their management and control requiring consideration and action.

The development and evolution of the Marine-Hospital Service has kept pace with the advancement of medical and sanitary science, both at home and abroad.

[NOTE: The foregoing article was prepared for distribution in pamphlet form in connection with the Marine-Hospital Service exhibit at the Pan-American Exposition, Buffalo, N. Y., 1901.]

A CASE OF APPENDICITIS. WITH OPERATION RECOVERY.

By Actg. Asst. Surg. Robert C. Craig.

This was the sixth attack of appendicitis which the patient had had during the past three years. On July 15, 1901, while at work he was seized suddenly with severe cramps in the abdomen, so severe that he fell from the scaffold on which he was working. After a few hours he began to vomit, the cramps and vomiting continuing irregularly until his admission to the hospital, August 19, 1901. The patient had taken some castor oil and magnesia the night before his admission, so that his bowels had moved freely.

Temperature on admission 99° C. Pulse 120 per minute and feeble; high tension, greatly nauseated. Severe cramps in abdomen, which was considerably distended. Very tender, especially in the right iliac region, over McBurney's point. Right rectus muscle was very rigid; the left only slightly so. A small mass could be outlined just under McBurney's point.

A high enema was given which relieved the patient greatly. Being a little better the next day, it was decided to operate.

Operation. An incision 7 cm. long was made obliquely over McBurney's point. The peritoneal cavity was opened carefully, and the appendix found below and behind the cecum. It was quite large and attached about its middle, an abscess having formed at the end.

The mesentery attachment was tied off, chromacized catgut being used, and the appendix cut free therefrom. A temporary ligature of sterilized catgut was tied around the base of the appendix just beyond its attachment to the cecum. A "cuff" of the peritoneal coat was then made, beginning one half cm. above and extending to its base. A ligature of chromacized catgut, having been tied tightly around the appendix at its base, the appendix was then cut off just above this ligature. A drop of carbolic acid was placed on its cut end, and the peritoneal "cuff" brought over it and sutured, making a closed stump, covering the temporary ligature, the base of the appendix. The stump was then invaginated into the cecum, the peritoneal surfaces of which were brought together over this ligature, being drawn tight, like a purse-string. The abdominal wound was then closed by interrupted silk and catgut sutures extending through the peritoneum. An antiseptic dressing was applied and the patient put to bed. The patient's temperature was normal the next day and remained so. The state of the wound August 23, 1901. The abdominal sutures were removed the [illegible]

THE UNITED STATES MARINE-HOSPITAL SERVICE.

By P. A. Surg. M. J. Rosenau.

The Marine-Hospital Service receives its name from the fact that it has charge of the marine hospitals which are located at our ports for the treatment of sick and disabled seamen of the merchant marine. It has by law, however, many other duties and functions, particularly the conduct of quarantine, the management of epidemics, the medical inspection of immigrants, the maintenance of a hygienic laboratory, the investigation of sanitary problems, and other matters concerning the public health.

The Marine-Hospital Service is a Bureau under the Treasury Department, and is conducted by a Surgeon-General with a staff of assistants in charge of the various divisions.

The marine hospitals are maintained by a tax imposed on tonnage. The expense of the national quarantines is paid by appropriations of Congress, and the cost of suppressing epidemics is paid from a special fund set aside by Congress for this purpose.

HISTORICAL.

Marine hospitals existed in the early days of our country under charters granted by King George III, but the Marine-Hospital Service proper dates from July 16, 1798, when Congress passed an act for the relief of sick and disabled seamen, creating a fund for this purpose designated "The Marine-Hospital fund." The benefits of these hospitals were extended to sailors in the U. S. Navy until 1811, when Congress authorized separate naval hospitals.

In 1871 the Service was reorganized and the position of Supervising Surgeon-General created. Since that time the Marine-Hospital Service has outgrown its name, for, in addition to conducting marine hospitals, Congress has from time to time imposed upon it additional duties and responsibilities, and its activities have been so extended and its functions so multiplied that its work is now that of a national board of health or public health service.

PERSONNEL.

The Marine-Hospital Service at present consists of a Surgeon-General, 29 surgeons, 21 passed assistant surgeons, and 56 assistant surgeons—107 commissioned officers, who are appointed by the President by and with the consent of the Senate. In order to become a commissioned officer of the Service it is necessary to pass a competitive examination before a board composed of officers of the Service. Officers of the Service are not appointed to any special station, but are subject to change of station at any time in compliance with orders.

There are 129 acting assistant surgeons, appointed by the Secretary

[illegible] Treasury for duty at ports where the amount of work does not [illegible] detail of a commissioned officer.

[illegible] corps of 15 pharmacists in the Service known officially [illegible] In addition to their professional work they have impor[illegible] duties.

MARINE HOSPITALS.

[illegible] 22 United States marine hospitals and 115 additional [illegible] in the various ports of the country. These hospitals [illegible] both the Atlantic and Pacific seaboards, on the Gulf [illegible] and the chain of Great Lakes, and at many of the larger [illegible] A new hospital has lately been opened in Alaska, and [illegible] have been established at San Juan and Ponce, in Porto Ri[illegible] and at Honolulu.

OVER 50,000 SEAMEN TREATED A YEAR.

[illegible] reports of the Service show that more than 50,000 sick and dis[illegible] of the merchant marine are treated annually. For [illegible] the past fiscal year 50,155 seamen were treated, of [illegible] were treated in hospitals. There were 1,580 [illegible] surgical operations performed during the year, requiring [illegible] anesthetics.

SANATORIUM FOR CONSUMPTIVES.

A [illegible] consumptive seamen has been established at Fort [illegible] N. Mex., right in the heart of the city, equable climate which [illegible] for the unfortunates who have contracted this most [illegible] of all modern scourges. The sanatorium was opened for [illegible] of patients November 15, 1899, and to April 1, 1901, [illegible] 44 patients admitted, transferred from the several [illegible] of whom 17 were discharged as recovered, 33 [illegible] died of tuberculosis of the lungs, the disease having [illegible] for the patients to be benefited by the change.

[illegible] serves a double purpose. It gives the consumptive [illegible] fighting chance to recover that is known to modern [illegible] takes the source of infection out of the forecastle. In this [illegible] to check the spread of the disease. The well are protected [illegible] are benefited. The sanatorium has so far been conducted [illegible] accomplishing the results anticipated.

DIVISION OF DOMESTIC QUARANTINE.

[illegible] duty of the division of domestic quarantine is to keep infec[illegible] contagious diseases out of the country. It is responsible [illegible] of the international quarantines and for a supervision [illegible] State and local quarantines.

[illegible] coming from a foreign or an infected port must pass [illegible] quarantine and have the certificate of the quarantine officer [illegible] admitted to any of our ports. The vessel is [illegible] inspected as to its sanitary condition by the quarantine officer, [illegible] quarantines into the health [illegible] on board. The quar[illegible] officer obtains much useful information from the bill of health [illegible] other papers which the captain of the vessel is obliged to present.

own way, and the wound filled in from below rapidly. The part of the wound that was sutured having healed, the sutures were removed the fifth day. After ten days the drainage tube was unnecessary. It had been removed three times daily after the third day and the abscess cavity and wound was cleansed by the use of hydrogen dioxide on aseptic gauze. This served as drainage and prevented the cavity from being closed too rapidly. By November 14 the entire wound had healed, requiring only an occasional dressing over the line of incision. Patient was allowed out of bed November 15, and walked about ward till date of discharge.

December 6, 1901.—The patient has been in excellent health since the operation.

TISTICS OF THE MARINE-HOSPITAL SERVICE.

[illegible]TISTICS OF THE UNITED STATES MARINE-HOSPITAL SERVICE.

[illegible] statistical tables are self-explanatory:

[illegible] I. COMPARATIVE TABLE OF NUMBER TREATED, 1868 TO 1901.

[illegible] tabular statement will serve to illustrate its growth since the reor[illegible] of the Marine-Hospital Service in 1871

[illegible] Marine-Hospital Service from July [illegible], to June [illegible], 1901.

[illegible]	Number of places at which relief was furnished	Number of sick and disabled seamen furnished relief
[illegible]		
	[illegible]	11,[illegible]
	[illegible]	11,[illegible]
	7[illegible]	10,[illegible]
[illegible]		
	[illegible]	14,[illegible]
	[illegible]	1[illegible]
	[illegible]	1[illegible]
	[illegible]	14,[illegible]
	[illegible]	15,[illegible]
	[illegible]	16,[illegible]
	100	15,175
	210	1[illegible],[illegible]
	210	20,[illegible]
	210	24,[illegible]
		[illegible]
		[illegible] 184
		40,19[illegible]
		44,[illegible]
		41,[illegible]
		4[illegible]
		4[illegible]
		4[illegible]
		4[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]
		[illegible]

TABLE 11.—EXHIBIT OF OPERATIONS OF THE SERVICE DURING THE FISCAL YEAR ENDED JUNE 30, 1901.

Ports.	Total number of seamen treated.	Patients in hospital July 1, 1900.	Admitted during the year.	Total treated in hospital.	Discharged.	Died.	Remaining in hospital June 30, 1901.	Number of days relief in hospital.	Number of persons furnished office relief.	Number of times relief was furnished.	Number of persons examined physically, including pilots.	Amount expended.	Tonnage tax collected.
Total	**58,381**	**770**	**12,571**	**13,341**	**12,132**	**421**	**788**	**346,844**	**15,040**	**69,199**	**4,417**	**a$1,007,317.79**	**b$906,338.43**
Albany, N. Y.	4		4	4	4			106				197.00	
Apalachicola, Fla	64	1	17	18	17	1		220	46	77		715.00	1,712.34
Ashland, Wis.	130	3	28	31	25	1	5	409	108	122		582.35	
Ashtabula, Ohio	241	1	38	39	38		1	462	202	361		713.50	
Astoria, Oreg.	106	4	27	31	29	1	1	415	75	97	31	1,030.75	14,000.82
Baltimore, Md	1,897	44	454	498	441	25	32	18,737	1,399	2,099	217	23,234.38	63,093.09
Bangor, Me	114	2	27	29	26		3	753	85	99	15	1,294.95	604.86
Barnstable, Mass., and subports	159		1	1	1				158	373		369.65	27.63
Bath, Me	42								42	168		283.70	62.67
Beaufort, N. C.	73		4	4	4			49	69	107	50	478.36	2.22
Beaufort, S. C.	21								21	34		41.35	932.34
Belfast, Me	2								2	20		23.30	73.53
Bismarck, N. Dak	5		4	4	3		1	53	1	2		288.10	
Boothbay Harbor, Me	107		6	6	5		1	72	101	102	2	412.50	
Boston, Mass.	2,725	49	593	642	585	17	40	21,798	2,083	3,288	330	35,924.15	62,276.49
Bridgeport, Conn.	20	1	15	16	15		1	438	4	4		483.00	153.51
Bristol, R. I.													7.14
Brownsville, Tex.													24.54
Brunswick, Ga.	173	3	44	47	42	3	2	934	126	153		1,486.75	10,881.12
Buffalo, N. Y.	2,695	22	400	422	392	14	16	6,706	2,273	2,699	45	13,213.35	
Burlington, Iowa	17		17	17	16	1		210				158.20	190.86
Cairo, Ill	898	8	262	270	254	8	8	3,699	568	745		10,992.27	
Cambridge, Md	79		30	30	29	1		404	49	71		684.00	
Castine, Me	3								3	9		28.00	78.30
Cape Vincent, N. Y.													95.13
Cedar Keys, Fla	206		1	1	1			8	205	308		316.90	2.34
Charleston, S. C.	750	2	104	106	98	2	6	1,615	644	864	110	6,302.36	5,509.74
Chattanooga, Tenn.	31		1	1	1			6	30	102		300.00	
Chicago, Ill.	2,631	33	511	544	503	11	30	12,444	2,087	2,917	72	29,290.87	
Cincinnati, Ohio	690	14	197	211	196	3	12	6,232	479	645	14	15,901.31	
Cleveland, Ohio	1,932	29	320	349	304	11	34	11,663	1,583	2,483	67	20,141.67	252.63
Coos Bay, Oreg.													12.30
Corpus Christi, Tex.	22		4	4	3	1		50	18	83	15	408.35	
Crisfield, Md	103								103	157		310.00	
Darien, Ga	38								38	40		232.55	
Delaware Breakwater, Del	303	2	69	71	66	5	2	1,001	295	298	41	8,098.61	
Detroit, Mich.	1,394	14	315	329	306	8	15	7,811	1,095	2,023	84	17,468.14	17.07
Dubuque, Iowa	29	2	28	30	27		3	484	9	10	15	881.88	

TABLE 11.—EXHIBIT OF OPERATIONS OF THE SERVICE DURING THE FISCAL YEAR ENDED JUNE 30, 1901—Continued.

Ports.	Total number of seamen treated.	Patients in hospital July 1, 1900.	Admitted during the year.	Total treated in hospital.	Discharged.	Died.	Remaining in hospital June 30, 1901.	Number of days relief in hospital.	Number of persons furnished office relief.	Number of times relief was furnished.	Number of persons examined physically, including pilots.	Amount expended.	Tonnage tax collected.
New Haven, Conn	52	1	36	37	34	1	2	789	15	17	37	$1,257.76	$100.44
New London, Conn	109		16	16	14	1	1	327	93	93		1,010.65	21.60
New Orleans, La	2,363	32	448	480	452	11	17	11,448	1,883	2,287		30,289.20	86,307.20
Newport, Ark	153		20	20	18	1	1	169	133	224		558.13	
Newport, R. I	64	3	27	30	28	1	1	672	34	40	46	1,355.80	52.62
Newport News, Va	46								46	46		232.60	19,529.13
Newport, Vt													58.50
New York, N. Y	4,690	92	1,035	1,127	994	47	86	36,403	3,563	5,875	655	67,847.50	294,291.77
Norfolk, Va	1,851	19	329	348	324	13	11	4,721	1,503	1,934	117	7,498.54	14,151.00
Ogdensburg, N. Y	62		4	4	3		1	70	58	161		438.85	1,182.36
Oswego, N. Y	76		5	5	4	1		103	71	156		395.78	931.89
Paducah, Ky	147								147	322		497.29	
Pensacola, Fla	134	6	128	134	125	4	5	2,053				3,031.00	26,133.15
Perth Amboy, N. J													584.55
Philadelphia, Pa	1,588	20	427	447	419	11	17	9,405	1,141	1,557	304	20,997.67	77,994.92
Pittsburg, Pa	1,451	8	269	277	252	11	14	5,011	1,174	1,523	22	1,052.02	
Plattsburg, N. Y													3,320.22
Plymouth, Mass													10.95
Ponce, P. R	48		10	10	10			66	38	45		99.00	
Port Huron, Mich	198	1	10	11	8	2	1	188	187	416		488.00	
Portland, Me	694	19	210	229	204	5	20	7,497	455	627	70	14,714.52	22,179.90
Portland, Oreg	436	5	77	82	77	1	4	1,852	354	720	54	1,119.51	
Port Tampa, Fla	148	3	81	84	80	2	2	1,619	64	199		2,289.25	
Portsmouth, N. H	30		7	7	7			63	23	25	29	270.72	5.91
Port Townsend, Wash	623	29	427	456	411	11	34	16,732	167	368	8	19,200.38	26,561.22
Providence, R. I	451	1	57	58	57	1		948	393	815	7	1,971.49	175.89
Purveying depot, New York, N. Y												180,618.92	
Richmond, Va	53	1	14	15	14		1	219	38	38		528.30	15.18
Rochester, N. Y													509.58
Rockland, Me	196		2	2	1	1		15	194	561	17	578.36	
Saco, Me													2.94
Saginaw, Mich	171		37	37	36	1		680	134	194	9	850.13	
Sag Harbor, N. Y	7								7	11		22.00	74.74
Salem, Mass	18		1	1	1			37	17	17		77.50	283.32
San Diego, Cal	53	1	8	9	9			206	44	71	1	5,063.59	2,908.11
Sandusky, Ohio	54		10	10	9		1	152	44	71	21	353.83	
San Francisco, Cal	3,017	57	803	860	765	31	64	27,535	2,157	4,273	625	36,168.64	32,263.62
San Juan, P. R	37		13	13	13			194	24	48	5	143.20	

[illegible]

TABLE III.—SUMMARY OF PHYSICAL EXAMINATIONS OF SEAMEN MADE BY OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, YEAR ENDED JUNE 30, 1901.

Summary of examinations and causes of rejection.	Total.	Pilots.	Revenue-Cutter Service.	Life-Saving Service.	Merchant marine.	Coast-Survey Service.	Marine-Hospital Service.	Light-House Service.	United States naval officers.
Summary of examinations:									
Total number examined	4,417	1,644	932	1,445	310	30	22	10	2
Number passed	4,074	1,550	777	1,364	310	21	21	8	2
Number rejected	343	94	155	81		9	1	2	1
Causes of rejection:									
Ankylosis of wrist			1						
Bronchitis			2	1					
Bright's disease			5	2					
Chancre			2	1					
Color blindness		53	14	11					
Consolidation of right lung			2	1					
Deafness		1	3	5				1	
Debility		1		1		1		1	
Deformity of leg			1	1		1			
Degeneration of spinal cord				1					
Diarrhea			2	1					
Disease of heart—									
Fatty degeneration		2	3	1		1			
Hypertrophy		1	1	2					
Mitral murmur			1	1					
Mitral insufficiency		1	2	2					
Mitral regurgitation		1	3						
Valvular			7	2					
Enlarged tonsils			3	2					
Epididymitis		2	3	3		2	1		
Hemorrhoids—									
External		3	2	1					
Internal		1	5	2					
Hernia—									
Inguinal		1	3	5					
Oblique		1	1			1			
Hydrocele			3						1
Hypertrophy of tonsils			2	2					
Inflammation of rectum			1						
Injury to testicle		1	2	2					
Laryngitis		1	5	1					
Loss of middle finger right hand				1					
Loss of toes			2						
Insufficient stature			3	2					
Insufficient chest expansion			5	2					
Old age			3	2					
Œdema of legs			3	3					
Opacity of cornea		2	3	3					
Orchitis		1	3	4					
Rheumatism			5			2			
Roughened breathing			3	3					
Scald of arm		1	1						
Sprain of ankle				2					
Sty		1	1			1			
Syphilis—									
Primary		2	5						
Secondary		8	3						
Tubercle of lungs		3	10	3					
Ulcer of penis		1	3						
Ulcer of pharynx			3						
Varicose veins of leg		3	5	1					
Varicocele		2	8	3					
Weak lungs			6	1					
Weak pulse			1						

V.—STATEMENT, BY DISTRICTS, OF THE NUMBER OF PATIENTS TREATED DURING THE YEAR ENDED JUNE 30, 1901

District	Total cases	Patients in hospital July 1, 1900	Admitted during the year	Total number treated in hospital	Discharged	Died	Patients in hospital June 30, 1901	Number of days relief in hospital	Number of days furnished office relief
Total	[illegible]	770	12,571	13,341	12,122	621	798	366,944	65,060
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

V. RATIO OF PATIENTS TREATED IN HOSPITAL IN EACH DISTRICT

District	Percent of patients treated in hospital	District	Percent of patients treated in hospital
[illegible]	[illegible]	The Mississippi	[illegible]
[illegible]	[illegible]	The Great Lakes	[illegible]
[illegible]	[illegible]	The Pacific	[illegible]
[illegible]	[illegible]	The [illegible]	[illegible]
[illegible]	[illegible]		

VI. AVERAGE DURATION OF TREATMENT IN HOSPITAL IN EACH DISTRICT

District	Average number of days relief furnished patients in hospital	District	Average number of days relief furnished patients in hospital
[illegible]	[illegible]	The Mississippi	[illegible]
[illegible]	[illegible]	The Great Lakes	[illegible]
[illegible]	[illegible]	The Pacific	[illegible]
[illegible]	[illegible]	The [illegible]	[illegible]
[illegible]	[illegible]		

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Grand total of all cases	**770**	**12,571**	**7,878**	**3,915**	**339**	**421**	**788**	**45,040**	**58,381**
GENERAL DISEASES	315	5,518	3,496	1,640	175	192	330	19,239	25,022
LOCAL DISEASES	348	5,045	2,988	1,714	141	205	345	21,374	26,767
GENERAL INJURIES	3	146	105	34	.....	6	4	251	400
LOCAL INJURIES	104	1,862	1,289	527	23	18	109	4,176	6,162
NORTH ATLANTIC.									
TOTAL CASES	80	1,062	646	362	29	33	72	4,228	5,390
General Diseases	**33**	**504**	**298**	**184**	**11**	**14**	**30**	**1,716**	**2,253**
Smallpox	.....	1	1	.....	.....	.....	.....	.....	1
Chicken pox	.....	1	1	.....	.....	.....	.....	1	2
Measles	.....	8	7	.....	.....	.....	1	3	11
Scarlet fever	.....	1	1	.....	.....	.....	.....	.....	1
Influenza	.....	34	27	6	.....	.....	1	131	165
Mumps	.....	2	1	1	.....	.....	.....	2	4
Simple continued fever	1	.....	1	.....	.....	.....	.....	.....	1
Enteric fever	2	54	44	3	.....	2	7	8	64
Choleraic diarrhea	.....	4	3	.....	.....	1	.....	.....	4
Dysentery	.....	5	5	.....	.....	.....	.....	10	15
Beriberi	.....	1	.....	.....	.....	1	.....	.....	1
Malarial fever:									
Intermittent	3	58	54	7	.....	.....	.....	84	145
Remittent	.....	4	4	.....	.....	.....	.....	2	6
Erysipelas	1	2	3	.....	.....	.....	.....	2	5
Septicæmia	.....	1	1	.....	.....	.....	.....	1	2
Tubercle	7	30	20	.....	5	8	4	34	71
Syphilis:									
Primary	1	1	1	1	.....	.....	.....	45	47
Secondary	4	89	.....	91	.....	1	1	356	451
Gonorrhea	6	96	60	34	.....	.....	8	610	712
Diseases dependent on animal parasites:									
Tænia solium	.....	.....	.....	.....	.....	.....	.....	1	1
Acanthia lectularia	.....	.....	.....	.....	.....	.....	.....	1	1
Phthirius inguinalis	.....	.....	.....	.....	.....	.....	.....	1	1
Sarcoptes scabiei	.....	1	1	.....	.....	.....	.....	2	3
Ascaris lumbricoides	.....	.....	.....	.....	.....	.....	.....	1	1
Diseases dependent on vegetable parasites:									
Trichophyton tonsurans	.....	.....	.....	.....	.....	.....	.....	2	2
Microsporon furfur	.....	.....	.....	.....	.....	.....	.....	5	5
Tinia barbæ	.....	.....	.....	.....	.....	.....	.....	1	1
Effects of animal poisons, decayed and poisonous food	.....	1	1	.....	.....	.....	.....	.....	1
Effects of vegetable poisons:									
Copaiba	.....	.....	.....	.....	.....	.....	.....	2	2
Rhus	.....	1	1	.....	.....	.....	.....	1	2
Coal gas	.....	.....	.....	.....	.....	.....	.....	1	1
Effects of the presence of foreign bodies	.....	1	.....	.....	.....	.....	.....	.....	1
Effects of heat	.....	3	3	.....	.....	.....	.....	.....	3
Effects of cold	.....	1	1	.....	.....	.....	.....	.....	1
Alcoholism	.....	13	12	.....	.....	.....	.....	11	24
Rheumatic fever	.....	15	9	5	.....	.....	1	7	22
Rheumatism	8	55	29	27	2	.....	5	275	330
Osteoarthritis	.....	1	.....	.....	.....	.....	.....	1	2
Cyst:									
Mucous	.....	.....	.....	.....	.....	.....	.....	4	4
Sebaceous	.....	.....	.....	.....	.....	.....	.....	5	5

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Discharged: Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
New growth, nonmalignant:									
Lipoma		[illegible]						[illegible]	[illegible]
Fibroma		[illegible]			[illegible]			1	[illegible]
Chondroma								[illegible]	[illegible]
[illegible]									1
Papilloma			[illegible]					[illegible]	[illegible]
Pterygium									1
Keloid								[illegible]	[illegible]
New growth, malignant:									
Sarcoma						[illegible]			1
Carcinoma			[illegible]				[illegible]	[illegible]	[illegible]
Epithelioma								[illegible]	1
Anaemia								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]					[illegible]	[illegible]	[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
Local Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE NERVOUS SYSTEM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									1
[illegible]		[illegible]							[illegible]
[illegible]									1
[illegible]									1
[illegible]									[illegible]
[illegible]									1
[illegible]						[illegible]			
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									1
[illegible]									1
[illegible]				[illegible]					[illegible]
[illegible]								[illegible]	
[illegible]									1
DISEASES OF THE EYE		[illegible]						[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]		[illegible]							[illegible]

TABLE 11.—EXHIBIT OF OPERATIONS OF THE SERVICE DURING THE FISCAL YEAR ENDED JUNE 30, 1901—Continued.

Ports.	Total number of seamen treated.	Patients in hospital July 1, 1900.	Admitted during the year.	Total treated in hospital.	Discharged.	Died.	Remaining in hospital June 30, 1901.	Number of days relief in hospital.	Number of persons furnished office relief.	Number of times relief was furnished.	Number of persons examined physically, including pilots.	Amount expended.	Tonnage tax collected
New Haven, Conn	52	1	36	37	34	1	2	789	15	17	37	$1,257.76	$100.44
New London, Conn	109		16	16	14	1	1	327	93	93		1,010.65	21.00
New Orleans, La	2,393	32	448	480	452	11	17	11,448	1,883	2,287		30,260.20	86,307.20
Newport, Ark	153		20	20	18	1	1	109	133	224		558.13	
Newport, R. I	64	3	27	30	28	1	1	672	34	40	46	1,355.80	52.02
Newport News, Va	46								46	46		232.00	10,520.13
Newport, Vt													58.50
New York, N. Y	4,690	92	1,035	1,127	994	47	86	36,403	3,583	5,875	655	67,847.50	294,291.77
Norfolk, Va	1,851	19	329	348	324	13	11	4,721	1,503	1,634	117	7,498.54	14,151.00
Ogdensburg, N. Y	62		4	4	3		1	70	58	161		438.85	1,182.36
Oswego, N. Y	76		5	5	4	1		103	71	156		395.78	931.89
Paducah, Ky	147								147	322		497.29	
Pensacola, Fla	134	6	128	134	125	4	5	2,053				3,031.00	26,133.15
Perth Amboy, N. J													584.55
Philadelphia, Pa	1,588	20	427	447	419	11	17	9,465	1,141	1,557	304	20,907.67	77,604.02
Pittsburg, Pa	1,451	8	269	277	252	11	14	5,011	1,174	1,523	22	1,052.02	
Plattsburg, N. Y													3,320.22
Plymouth, Mass													10.05
Ponce, P. R	48		10	10	10			66	38	45		90.00	
Port Huron, Mich	198	1	10	11	8	2	1	188	187	416		488.00	
Portland, Me	684	19	210	229	204	5	20	7,497	455	627	70	14,714.52	22,179.00
Portland, Oreg	436	5	77	82	77	1	4	1,852	354	720	54	1,110.51	
Port Tampa, Fla	148	3	81	84	80	2	2	1,619	64	199		2,280.25	
Portsmouth, N. H	30		7	7	7			63	23	25	29	270.72	5.01
Port Townsend, Wash	623	29	427	456	411	11	34	16,732	167	308	8	10,200.38	26,561.22
Providence, R. I	451	1	57	58	57	1		948	383	815	7	1,971.49	175.80
Purveying depot, New York, N. Y												180,618.92	
Richmond, Va	53	1	14	15	14		1	219	38	38		528.30	15.18
Rochester, N. Y													500.58
Rockland, Me	196		2	2	1	1		15	194	561	17	578.36	
Saco, Me													2.94
Saginaw, Mich	171		37	37	36	1		680	134	194	9	850.13	
Sag Harbor, N. Y	7								7	11		22.00	74.74
Salem, Mass	18		1	1	1			37	17	17		77.50	283.32
San Diego, Cal	53	1	8	9	9			206	44	71	1	5,063.59	2,968.11
Sandusky, Ohio	54		10	10	9		1	152	44	71	21	353.83	
San Francisco, Cal	3,017	57	803	860	765	31	64	27,535	2,157	4,373	625	36,108.64	32,263.02
San Juan, P. R	37		13	13	13			194	24	48	5	143.20	
[illegible]	2,097	29	396	425	397	22	16	9,111	1,612	2,252	25	20,183.74	

[illegible]

TABLE III.—SUMMARY OF PHYSICAL EXAMINATIONS OF SEAMEN MADE BY OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, YEAR ENDED JUNE 30, 1901.

Summary of examinations and causes of rejection.	Total.	Pilots.	Revenue-Cutter Service.	Life-Saving Service.	Merchant marine.	Coast-Survey Service.	Marine-Hospital Service.	Light-House Service.	United States naval colliers.
Summary of examinations:									
Total number examined	4,417	1,644	932	1,445	310	30	22	10	24
Number passed	4,074	1,550	777	1,364	310	21	21	8	23
Number rejected	343	94	155	81		9	1	2	1
Causes of rejection:									
Ankylosis of wrist			1						
Bronchitis			2	1					
Bright's disease			5	2					
Chancre			2	1					
Color blindness		53	14	11					
Consolidation of right lung			2	1					
Deafness		1	3	5				1	
Debility		1		1		1		1	
Deformity of leg			1	1		1			
Degeneration of spinal cord				1					
Diarrhea			2	1					
Disease of heart—									
Fatty degeneration		2	3	1		1			
Hypertrophy		1	1	2					
Mitral murmur			1	1					
Mitral insufficiency		1	2	2					
Mitral regurgitation		1	3						
Valvular			7	2					
Enlarged tonsils			3	2					
Epididymitis		2	3	3		2	1		
Hemorrhoids—									
External		3	2	1					
Internal		1	5	2					
Hernia—									
Inguinal		1	3	5					
Oblique		1	1			1			
Hydrocele			3						1
Hypertrophy of tonsils			2	2					
Inflammation of rectum			1						
Injury to testicle		1	2	2					
Laryngitis		1	5	1					
Loss of middle finger right hand				1					
Loss of toes			2						
Insufficient stature			3	2					
Insufficient chest expansion			5	2					
Old age			3	2					
Œdema of legs			3	3					
Opacity of cornea		2	3	3					
Orchitis		1	3	4					
Rheumatism			5			2			
Roughened breathing			3	3					
Scald of arm		1	1						
Sprain of ankle				2					
Sty		1	1			1			
Syphilis—									
Primary		2	5						
Secondary		8	3						
Tubercle of lungs		3	10	3					
Ulcer of penis		1	3						
Ulcer of pharynx			3						
Varicose veins of leg		3	5	1					
Varicocele		2	8	3					
Weak lungs			6	1					
Weak pulse			1						

STATEMENT, BY DISTRICTS, OF THE NUMBER OF PATIENTS TREATED DURING THE YEAR ENDED JUNE 30, 1901

	Total cases	Patients in hospital July 1, 1900	Admitted during the year	Total number treated in hospital	Discharged	Died	Patients in hospital June 30, 1901	Number of days relief in hospital	Number of medicaments furnished office relief
	30,891	770	12,571	13,341	12,132	421	788	366,944	43,040
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	117	[illegible]	[illegible]	[illegible]	[illegible]	110	[illegible]	[illegible]
	[illegible]	122	[illegible]	[illegible]	[illegible]	61	112	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	51	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	157	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	70	[illegible]	64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RATIO OF PATIENTS TREATED IN HOSPITAL IN EACH DISTRICT

District	Per cent of patients treated in hospital	District	Per cent of patients treated in hospital
	[illegible]	The Mississippi	[illegible]
	[illegible]	The Great Lakes	[illegible]
	[illegible]	The Pacific	[illegible]
	[illegible]	The Quarantine stations	[illegible]
	[illegible]		

AVERAGE DURATION OF TREATMENT IN HOSPITAL IN EACH DISTRICT

District	Average number of days relief furnished from July 1, 1900	District	Average number of days relief furnished from July 1, 1900
	[illegible]	The Mississippi	[illegible]
	[illegible]	The Great Lakes	[illegible]
	[illegible]	The Pacific	[illegible]
	[illegible]	The Quarantine stations	[illegible]
	[illegible]		

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Grand total of all cases	770	12,571	7,878	3,915	339	421	788	45,040	58,381
GENERAL DISEASES	315	5,518	3,496	1,640	175	192	330	19,239	25,072
LOCAL DISEASES	348	5,045	2,988	1,714	141	205	345	21,374	26,765
GENERAL INJURIES	3	146	105	34	.....	6	4	251	400
LOCAL INJURIES	104	1,862	1,289	527	23	18	109	4,176	6,142
NORTH ATLANTIC.									
TOTAL CASES	80	1,062	646	362	29	33	72	4,238	5,390
General Diseases	33	504	298	184	11	14	30	1,716	2,253
Smallpox	.....	1	1	.....	.....	.....	.....	.....	1
Chicken pox	.....	1	1	.....	.....	.....	.....	1	2
Measles	.....	8	7	.....	.....	.....	1	3	11
Scarlet fever	.....	1	1	.....	.....	.....	.....	.....	1
Influenza	.....	34	27	6	.....	.....	1	131	165
Mumps	.....	2	1	1	.....	.....	.....	2	4
Simple continued fever	1	.....	1	.....	.....	.....	.....	.....	1
Enteric fever	2	54	44	3	.....	2	7	8	66
Choleraic diarrhea	.....	4	3	.....	.....	1	.....	.....	4
Dysentery	.....	5	5	.....	.....	.....	.....	10	15
Beriberi	.....	1	.....	.....	.....	1	.....	.....	1
Malarial fever:									
Intermittent	3	58	54	7	.....	.....	.....	84	156
Remittent	.....	4	4	.....	.....	.....	.....	2	6
Erysipelas	1	2	3	.....	.....	.....	.....	2	5
Septicæmia	.....	1	1	.....	.....	.....	.....	1	2
Tubercle	7	30	20	.....	5	8	4	34	71
Syphilis:									
Primary	1	1	1	1	.....	.....	.....	45	47
Secondary	4	89	.....	91	.....	1	1	358	451
Gonorrhea	6	96	60	34	.....	.....	8	610	712
Diseases dependent on animal parasites:									
Tænia solium	.....	.....	.....	.....	.....	.....	.....	1	1
Acanthia lectularia	.....	.....	.....	.....	.....	.....	.....	1	1
Phthirius inguinalis	.....	.....	.....	.....	.....	.....	.....	7	7
Sarcoptes scabiei	.....	1	1	.....	.....	.....	.....	2	3
Ascaris lumbricoides	.....	.....	.....	.....	.....	.....	.....	1	1
Diseases dependent on vegetable parasites:									
Trichophyton tonsurans	.....	.....	.....	.....	.....	.....	.....	2	2
Microsporon furfur	.....	.....	.....	.....	.....	.....	.....	5	5
Tinia barbæ	.....	.....	.....	.....	.....	.....	.....	1	1
Effects of animal poisons, decayed and poisonous food	.....	1	1	.....	.....	.....	.....	.....	1
Effects of vegetable poisons:									
Copaiba	.....	.....	.....	.....	.....	.....	.....	2	2
Rhus	.....	1	1	.....	.....	.....	.....	1	2
Coal gas	.....	.....	.....	.....	.....	.....	.....	1	1
Effects of the presence of foreign bodies	.....	1	.....	.....	.....	.....	.....	.....	1
Effects of heat	.....	3	3	.....	.....	.....	.....	.....	3
Effects of cold	.....	1	1	.....	.....	.....	.....	.....	1
Alcoholism	.....	13	12	.....	.....	.....	.....	11	24
Rheumatic fever	.....	15	9	5	.....	.....	.....	7	22
Rheumatism	8	55	29	27	2	.....	5	275	330
Osteoarthritis	.....	1	.....	.....	.....	.....	.....	1	2
Cyst:									
Mucous	.....	.....	.....	.....	.....	.....	.....	4	4
Sebaceous	.....	.....	.....	.....	.....	.....	.....	5	5

I.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

	Number of cases								
			Discharged						
Disease	Remaining under treatment from previous year	Admitted during the year	Recovered	Improved	Not improved	Dead	Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary
Non-malignant									
[illegible]		[illegible]		[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
Malignant									
[illegible]									[illegible]
[illegible]			[illegible]				[illegible]	[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
Brain								[illegible]	[illegible]
[illegible]		[illegible]					[illegible]	[illegible]	[illegible]
				[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] THE NERVOUS SYSTEM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]									
[illegible]				[illegible]				[illegible]	[illegible]
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[illegible]									[illegible]
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TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished officers relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE EYE—Continued.									
Ametropia								3	3
Abscess lachrymal sac								1	1
Ptosis								1	1
DISEASES OF THE EAR		9	1	6	2			19	28
Inflammation of the external meatus—chronic								1	1
Accumulation in external meatus of wax or epidermis								13	13
Inflammation of the middle ear—									
Nonsuppurative		4	1	2	1			4	8
Suppurative		4		4					4
Obstruction of Eustachian tube								1	1
Deafness		1			1				1
DISEASES OF THE NOSE		1		1				41	42
Inflammation of soft parts		1	1					41	42
Diseases of septum		1		1				4	5
Epistaxis								1	1
Inflammation of the accessory sinuses		1		1					1
Inflammation of the naso-pharynx								3	3
DISEASES OF THE CIRCULATORY SYSTEM	7	30	3	25	1	6	2	55	92
Valvular disease—									
Aortic		5		4	1			2	7
Mitral	4	17		17		3	1	13	34
Aortic and mitral	3	2		3		2		4	9
Dilatation of heart								1	1
Angina pectoris								1	1
Disordered action of the heart—irregularity								10	10
Aneurism of arteries		3		1		1	1		3
Phlebitis		1	1						1
Varix		2	2					24	28
DISEASES OF THE RESPIRATORY SYSTEM		59	34	19	1	4	1	324	383
Inflammation of mucous membrane of larynx—catarrhal, acute								11	11
Bronchitis—									
Catarrhal, acute		23	14	9				239	262
Catarrhal, chronic		3	2		1			40	43
Spasmodic asthma		3		3				7	10
Congestion of lung		1		1				1	2
Hemorrhage of lung—hæmoptysis								3	3
Pneumonia		13	8	1		4		2	15
Broncho-pneumonia		1		1					1
Abscess of lung		1		1					1
Chronic interstitial inflammation		1		1					1
Phthisis—tubercular		1					1	3	4
Pleurisy—									
Acute		11	10	1				17	28
Chronic		1		1				1	2
DISEASES OF THE DIGESTIVE SYSTEM	2	92	65	22	2		5	525	619
Inflammation of the lips		1	1						1
Ulceration of the lips								3	3
Fissure of the lips								1	1
Caries of dentine and cementum								6	6
Abscess of dental periosteum		1	1					7	8
Inflammation of gums and alveoli		1	1					2	3

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901 (Continued).

NORTH ATLANTIC (Continued).

Disease	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished dispensary	Number treated in hospital and dispensary
			Recovered	Improved	Not improved	Dead			
Diseases of the digestive system									
Constipation									
Congestion of liver									
Tapeworm									
Liver abscess									
Ulceration of the tongue									
Sore throat									
Inflammation of the tonsils									
Follicular									
Suppurative									
Hypertrophy of the tonsils									
Elongated uvula									
Ulceration of fauces									
Inflammation of the pharynx and larynx									
Inflammation of the stomach and bowels									
Ulceration of the stomach and bowels									
Hemorrhage of the stomach									
Indigestion									
Constipation									
Inflammation of the rectum									
Fistula									
Piles									
Colitis									
Hernia									
Inflammation of the peritoneum									
Intestinal obstruction									
Liver abscess									
Jaundice									
Dysentery									
Peritonitis, acute									
Ascites (free abdomen)									
Peritonitis, chronic									
Piles									
Internal									
External									
Mixed									
Prolapsus ani									
Inflammation of the liver									
Hypertrophy of the liver									
Hypertrophy of the spleen									
Jaundice									
Inflammation of the gall-bladder and bladder									
Gall-stones									
Biliary colic									
Diseases of the genito-urinary system									
Inflammation of the kidneys									
Nephritis									
Diseases of the lymphatic system									
Adenopathy									
Lymphadenitis									
Inflammation of the lymphatic glands									
Tuberculosis									
Hemorrhagic									
Albinismus									
Inflammation of the									
Acute									
Subacute									
Chronic									

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE URINARY SYSTEM—Continued.									
Irritability of bladder								6	6
Retention of urine		2	1	1				4	6
Incontinence of urine								9	9
DISEASES OF THE GENERATIVE SYSTEM	6	56	44	14			4	216	35[illegible]
Urethritis								4	4
Gleet								44	44
Stricture of urethra—organic		10	2	8				70	80
Inflammation of the prostate—acute								1	1
Paraphimosis		1		1				4	5
Inflammation of the penis—of the glans								8	8
Ulcer of penis		6	4	2				13	19
Œdema of penis								1	1
Soft chancre	3	25	24	1			3	95	123
Abscess of the scrotum		1	1						1
Pruritus of the scrotum								2	2
Inflammation of the spermatic cord								1	1
Varicocele								11	11
Hydrocele of tunica vaginalis	2	3	5					8	13
Inflammation of the testicle								2	2
Acute orchitis	1	7	5	2			1	21	29
Epididymitis		2	2					4	6
Spermatorrhea		1	1					5	6
Impotence								2	2
DISEASES OF THE ORGANS OF LOCOMOTION	3	24	16	8		1	2	116	143
Inflammation of the bones—									
Osteitis		2	1	1					2
Periostitis		3		1			2	6	9
Caries		1	1					1	2
Necrosis								3	3
Inflammation of joints—									
Acute synovitis	1	5	5	1				16	22
Chronic synovitis		1		1					1
Dislocation of shoulder								1	1
Caries of the spine	2			1		1			2
Psoas, lumbar and other abscesses		1	1						1
Myalgia		9	7	2				51	60
Lumbago								18	18
Inflammation of sheaths of tendons								7	7
Thecal abscess								1	1
Ganglion								1	1
Inflammation of bursæ, acute								7	7
Bursal cyst		2	1	1				3	5
Flat-foot								1	1
DISEASES OF THE CONNECTIVE TISSUE	2	14	12	1	1		2	74	90
Inflammation	1	5	4					35	41
Abscess	1	9	8	1	1			38	48
Œdema								1	1
DISEASES OF THE SKIN	3	31	26	3	1		4	298	367
Erythema		1	1					1	2
Urticaria								6	6
Eczema		2	1	1				41	43
Prurigo								1	1
Psoriasis								7	7
Herpes		1	1					7	8
Zona		1	1					2	3
Pemphigus								1	1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

Disease	Number of cases		Discharged						
Injuries	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
LOCAL INJURIES—Continued.									
Wound of the male urethra, perineum, scrotum, testis, or penis		1				1			1
Wound of rectum								1	1
Fracture or dislocation of pelvic bones		1		1				3	4
Contusion of upper extremities		9	7	1			1	48	57
Sprain of shoulder								9	9
Sprain of elbow								2	2
Sprain of wrist		1	1					15	16
Sprain of hand								1	1
Sprain of thumb								1	1
Wound of upper extremities	2	14	15	1				158	169
Fracture of clavicle		3	2	1				3	6
Fracture of humerus	2	2	3	1					1
Fracture of bones of forearm—									
Radius		2	1	1				3	5
Ulna		2		2				2	4
Both bones		4	3	1				1	5
Fracture of carpus, metacarpus, or phalanges	2	4	4	2				6	12
Dislocation of clavicle								2	2
Dislocation of humerus		4	1	1			2	5	9
Dislocation of radius and ulna		1		1				1	2
Contusion of lower extremities		10	7	2			1	42	52
Sprain of knee		1	1					3	4
Sprain of ankle		6	6					9	15
Wound of lower extremities	1	7	7	1				21	29
Fracture of femur	1	3	4						4
Fracture of patella		1					1		1
Fracture of tibia	1	3	3				1		4
Fracture of fibula	1	3	2	1			1		4
Fracture of tibia and fibula		7	4	1			2		7
Fracture of bones of foot—									
Of the tarsus								2	2
Of the phalanges of the toes		1	1					4	5
Dislocation of foot		1	1					2	3

MIDDLE ATLANTIC.

TOTAL CASES	117	1,612	994	471	91	63	110	5,060	6,789
General Diseases	52	643	421	130	67	29	48	2,031	2,726
Smallpox								2	2
Cowpox								37	37
Measles								1	1
Influenza		37	32	5				148	185
Mumps		1	1						1
Enteric fever	6	21	21	1		2		4	31
Choleraic diarrhœa								4	4
Dysentery		7	5	2				11	18
Beriberi		7	4	2			1	1	8
Malarial fever:									
Intermittent	3	131	123	9		1	1	192	326
Remittent	1	12	11	2				13	26
Erysipelas		2	2						2
Tubercle	10	85	47		6	22	20	44	139
Syphilis:									
Primary		7		6			1	19	26
Secondary	6	88	7	70	2	1	5	579	673

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

District.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at end of year.	[illegible]	Number treated in hospital and dispensary.
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]			[illegible]	[illegible]
Diseases dependent on animal parasites									
Taenia solium		[illegible]	[illegible]					[illegible]	11
Taenia mediocanellata									1
Ascaris lumbricoides								[illegible]	2
Pediculus vestimenti								6	6
Phthirius inguinalis									1
Sarcoptes scabiei								[illegible]	11
Diseases dependent on vegetable parasites									
Trichophyton tonsurans								[illegible]	[illegible]
Microsporon furfur		[illegible]							1
Effects of poisonous gases									1
Effects of vegetable poisons									
Tobacco									[illegible]
Rhus									1
Effects of inorganic poisons									1
Effects of the presence of foreign bodies									[illegible]
Effects of mechanical injuries									6
[illegible]									1
[illegible]		[illegible]						[illegible]	[illegible]
Rheumatic fever	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
Rheumatism	[illegible]	[illegible]		[illegible]				[illegible]	[illegible]
[illegible]									1
Cysts									
[illegible]									[illegible]
Sebaceous		[illegible]	[illegible]						
New growths, nonmalignant									
Fibroma								[illegible]	[illegible]
Papilloma		[illegible]							[illegible]
[illegible]									1
New growths, malignant									
Sarcoma									[illegible]
Epithelioma									[illegible]
Carcinoma									[illegible]
[illegible]									1
Rodent ulcer									[illegible]
Anaemia		[illegible]							
Diabetes mellitus									
Diabetes insipidus									
Congenital malformations									
Debility									
Total diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE NERVOUS SYSTEM		[illegible]	[illegible]						
Of the nerves									
Inflammation									
Neuritis									[illegible]
Multiple neuritis									
Of the spinal cord and its membranes									
[illegible]									
Inflammation [illegible]									[illegible]
[illegible]									
[illegible]									[illegible]
[illegible]		[illegible]							
Of the brain and its membranes									
Membranes									
Inflammation [illegible]									[illegible]
Hemorrhage									
Of the brain and [illegible]									
Brain									
Inflammation									
Hemorrhage									[illegible]
Hyperaemia								[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE NERVOUS SYSTEM Continued.									
Functional nervous disorders with other diseases of undetermined nature—									
Paralysis		1					1	3	4
Paraplegia	2					1	1		2
Hemiplegia	1						1		1
Local paralysis	1	1		2					2
Incomplete paralysis								2	2
Paralysis agitans								1	1
Spasm								1	1
Torticollis								1	1
Epilepsy		2	1			1		1	3
Vertigo	1	3	1	3				2	6
Headache		3	2	1				22	25
Anæsthesia								1	1
Neuralgia	1	12	7	5			1	43	56
Nervous weakness		2		2				29	31
Mental diseases—									
Mania, acute		4	3		1				4
Melancholia		1			1				1
DISEASES OF THE EYE	2	17	8	11				49	69
Conjunctivitis		5	4	1				28	33
Conjunctivitis, catarrhal acute	1		1					2	3
Keratitis								4	4
Ulceration of cornea		1		1					1
Iritis	1	5	1	5				3	9
Glaucoma		1	1						1
Chronic hyperæmia of conjunctiva								1	1
Retinitis		1		1					1
Lenticular cataract								2	2
Capsular cataract								3	3
Hemorrhage of retina		1		1					1
Amblyopia		1		1				2	3
Temporary blindness		1		1					1
Ametropia								1	1
Abscess of lachrymal sac		1	1						1
Blepharitis marginalis								1	1
Sty								1	1
Œdema of eyelid								1	1
DISEASES OF THE EAR		5		4			1	21	26
Inflammation of the external meatus—									
Acute		1					1	3	4
Abscess								1	1
Accumulation in external meatus of wax or epidermis								9	9
Inflammation of the middle ear—									
Nonsuppurative		1		1				7	8
Suppurative		3		3					3
Perforation of membrana tympani								1	1
DISEASES OF THE NOSE								31	31
Inflammation of soft parts								31	31
Diseases of septum		3		3				2	5
Epistaxis		1		1				2	3
Inflammation of the accessory sinuses		2		2					2

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at end of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Diseases of the circulatory system	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
Valvular disease:									
Aortic (?)		[illegible]						[illegible]	[illegible]
Mitral (?)				[illegible]				[illegible]	[illegible]
Aortic and mitral (?)		[illegible]		[illegible]				[illegible]	[illegible]
Hypertrophy of heart (?)								[illegible]	[illegible]
Dilatation of heart (?)								[illegible]	[illegible]
Angina pectoris (?)									[illegible]
[illegible]									
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]							[illegible]
[illegible]									[illegible]
Varix (?)		[illegible]	[illegible]					[illegible]	[illegible]
Diseases of the respiratory system	[illegible]			[illegible]				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									
[illegible]									
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									
[illegible]	[illegible]	[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]				[illegible]					[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]			[illegible]						[illegible]
[illegible]		[illegible]							
[illegible]									
[illegible]									
[illegible]									
[illegible]									[illegible]
[illegible]									
[illegible]									
[illegible]			[illegible]						
[illegible]									
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
Diseases of the digestive system	[illegible]								
[illegible]									
[illegible]									[illegible]
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]								[illegible]	[illegible]
Sore throat								[illegible]	[illegible]
Ulceration of gums and fauces (?)									

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE EYE—Continued.									
Ametropia								3	3
Abscess lachrymal sac								1	1
Ptosis								1	1
DISEASES OF THE EAR		9	1	6	2			19	28
Inflammation of the external meatus—chronic								1	1
Accumulation in external meatus of wax or epidermis								13	13
Inflammation of the middle ear—									
Nonsuppurative		4	1	2	1			4	8
Suppurative		4		4					4
Obstruction of Eustachian tube								1	1
Deafness		1			1				1
DISEASES OF THE NOSE		1		1				41	42
Inflammation of soft parts		1	1					41	42
Diseases of septum		1		1				4	5
Epistaxis								1	1
Inflammation of the accessory sinuses		1		1					1
Inflammation of the naso-pharynx								3	3
DISEASES OF THE CIRCULATORY SYSTEM	7	30	3	25	1	6	2	55	92
Valvular disease—									
Aortic		5		4	1			2	7
Mitral	4	17		17		3	1	13	34
Aortic and mitral	3	2		3		2		4	9
Dilatation of heart								1	1
Angina pectoris								1	1
Disordered action of the heart—irregularity								10	10
Aneurism of arteries		3		1			1		3
Phlebitis		1	1						1
Varix		2	2					24	26
DISEASES OF THE RESPIRATORY SYSTEM		59	34	19		4	1	324	442
Inflammation of mucous membrane of larynx—catarrhal, acute								11	11
Bronchitis—									
Catarrhal, acute		23	14	9				239	262
Catarrhal, chronic		3	2		1			40	43
Spasmodic asthma		3		3				7	10
Congestion of lung		1		1				1	2
Hemorrhage of lung—hæmoptysis								3	3
Pneumonia		13	8	1		4		2	15
Broncho-pneumonia		1		1					1
Abscess of lung		1		1					1
Chronic interstitial inflammation		1		1					1
Phthisis—tubercular		1					1	3	4
Pleurisy—									
Acute		11	10	1				17	28
Chronic		1		1				1	2
DISEASES OF THE DIGESTIVE SYSTEM	2	92	65	22	2		5	525	619
Inflammation of the lips		1	1						1
Ulceration of the lips								3	3
Fissure of the lips								1	1
Caries of dentine and cementum								6	6
Abscess of dental periosteum		1	1					7	8
Inflammation of gums and alveoli		1	1					2	3

TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

	Number of cases								
			Discharged						

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE URINARY SYSTEM—Continued.									
Irritability of bladder								6	6
Retention of urine		2	1	1				4	6
Incontinence of urine								9	9
DISEASES OF THE GENERATIVE SYSTEM	6	56	44	14			4	296	352
Urethritis								4	4
Gleet								44	44
Stricture of urethra—organic		10	2	8				20	20
Inflammation of the prostate—acute								1	1
Paraphimosis		1		1				4	5
Inflammation of the penis—of the glans								8	8
Ulcer of penis		6	4	2				13	19
Œdema of penis								1	1
Soft chancre	3	25	24	1			3	95	128
Abscess of the scrotum		1	1						1
Pruritus of the scrotum								2	2
Inflammation of the spermatic cord								1	1
Varicocele								11	11
Hydrocele of tunica vaginalis	2	3	5					8	13
Inflammation of the testicle								2	2
Acute orchitis	1	7	5	2			1	21	29
Epididymitis		2	2					4	6
Spermatorrhea		1	1					5	6
Impotence								2	2
DISEASES OF THE ORGANS OF LOCOMOTION	3	21	16	8		1	2	116	163
Inflammation of the bones—									
Osteitis		2	1	1					2
Periostitis		3		1			2	6	9
Caries		1	1					1	2
Necrosis								3	3
Inflammation of joints—									
Acute synovitis	1	5	5	1				16	22
Chronic synovitis		1		1					1
Dislocation of shoulder								1	1
Caries of the spine	2			1		1			2
Psoas, lumbar, and other abscesses		1	1						1
Myalgia		9	7	2				51	60
Lumbago								18	18
Inflammation of sheaths of tendons								7	7
Thecal abscess								1	1
Ganglion								1	1
Inflammation of bursæ, acute								7	7
Bursal cyst		2	1	1				3	5
Flat-foot								1	1
DISEASES OF THE CONNECTIVE TISSUE	2	14	12	1	1		2	74	90
Inflammation	1	5	4					35	41
Abscess	1	9	8	1	1			38	48
Œdema								1	1
DISEASES OF THE SKIN	3	31	26	3	1		4	293	327
Erythema		1	1					1	2
Urticaria								6	6
Eczema		2	1	1				41	43
Prurigo								1	1
Psoriasis								7	7
Herpes		1	1					7	8
Zona		1	1					2	3
Pemphigus								1	1

TABLE [illegible]—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

Number of cases. Discharged.

[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

NORTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
LOCAL INJURIES—Continued.									
Wound of the male urethra, perineum, scrotum, testis, or penis		1				1			1
Wound of rectum								1	1
Fracture or dislocation of pelvic bones		1		1				3	4
Contusion of upper extremities		9	7	1			1	48	57
Sprain of shoulder								9	9
Sprain of elbow								2	2
Sprain of wrist		1	1					15	16
Sprain of hand								1	1
Sprain of thumb								1	1
Wound of upper extremities	2	14	15	1				158	160
Fracture of clavicle		3	2	1				3	6
Fracture of humerus	2	2	3	1					4
Fracture of bones of forearm—									
Radius		2	1	1				3	5
Ulna		2		2				2	4
Both bones		4	3	1				1	5
Fracture of carpus, metacarpus, or phalanges	2	4	4	2				6	12
Dislocation of clavicle								2	2
Dislocation of humerus		4	1	1			2	5	9
Dislocation of radius and ulna		1		1				1	2
Contusion of lower extremities		10	7	2			1	42	52
Sprain of knee		1	1					3	4
Sprain of ankle		6	6					9	15
Wound of lower extremities	1	7	7	1				21	29
Fracture of femur	1	3	4						4
Fracture of patella		1					1		1
Fracture of tibia	1	3	3				1		4
Fracture of fibula	1	3	2	1			1		4
Fracture of tibia and fibula		7	4	1			2		7
Fracture of bones of foot—									
Of the tarsus								2	2
Of the phalanges of the toes		1	1					4	5
Dislocation of foot		1	1					2	2

MIDDLE ATLANTIC.

TOTAL CASES	117	1,612	994	471	91	63	110	5,060	6,789
General Diseases	52	643	421	130	67	29	48	2,031	2,726
Smallpox								2	2
Cowpox								37	37
Measles								1	1
Influenza		37	32	5				148	185
Mumps		1	1						1
Enteric fever	6	21	24	1		2		4	31
Choleraic diarrhœa								4	4
Dysentery		7	5	2				11	18
Beriberi		7	4	2			1	1	8
Malarial fever:									
Intermittent	3	131	123	9		1	1	192	326
Remittent	1	12	11	2				13	26
Erysipelas		2	2						2
Tubercle	10	85	47		6	22	20	44	139
Syphilis:									
Primary		7		6			1	19	26
Secondary	6	88	7	79	2	1	5	579	673

[illegible] VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]			[illegible]	[illegible]
[illegible] due to animal parasites [illegible]									
[illegible]		[illegible]	[illegible]					[illegible]	14
[illegible]									1
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible]								[illegible]	11
[illegible] due to vegetable para[illegible]									
[illegible]								[illegible]	13
[illegible]		[illegible]		[illegible]					1
[illegible]		[illegible]							1
[illegible]									1
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible] potassium								[illegible]	1
[illegible] of foreign bodies								[illegible]	3
[illegible]								[illegible]	1
[illegible] and strain								[illegible]	1
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]			[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]					[illegible]	[illegible]
[illegible]									1
[illegible]									[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]									
[illegible]			[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						
[illegible]									1
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									1
[illegible]									1
[illegible]		[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]								1
[illegible]									
[illegible]									[illegible]
[illegible]									
[illegible] Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] Nervous System		[illegible]	[illegible]	[illegible]					[illegible]
[illegible]									
Inflammation [illegible]									
[illegible]									[illegible]
[illegible]									1
[illegible]									
[illegible]									
Inflammation [illegible]									[illegible]
[illegible]									
[illegible]									
[illegible]		[illegible]							
[illegible] and its membranes									
[illegible]									
Inflammation of dura mater									[illegible]
Hemorrhage									
the brain and its membranes									
[illegible]									
Inflammation									
Hemorrhage									[illegible]
Hyperemia									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged. Recovered.	Discharged. Improved.	Discharged. Not improved.	Discharged. Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
DISEASES OF THE NERVOUS SYSTEM—Continued.									
Functional nervous disorders with other diseases of undetermined nature—									
Paralysis		1					1	3	4
Paraplegia	2					1	1		2
Hemiplegia	1						1		1
Local paralysis	1	1		2					2
Incomplete paralysis								2	2
Paralysis agitans								1	1
Spasm								1	1
Torticollis								1	1
Epilepsy		2	1			1		1	3
Vertigo	1	3	1	3				2	6
Headache		3	2	1				22	28
Anæsthesia								1	1
Neuralgia	1	12	7	5			1	43	56
Nervous weakness		22		2				29	31
Mental diseases—									
Mania, acute		4	3		1				4
Melancholia		1			1				1
DISEASES OF THE EYE	2	17	8	11				49	68
Conjunctivitis		5	4	1				28	38
Conjunctivitis, catarrhal—acute	1		1					2	3
Keratitis								4	4
Ulceration of cornea		1		1					1
Iritis	1	5	1	5				3	9
Glaucoma		1	1						1
Chronic hyperæmia of conjunctiva								1	1
Retinitis		1		1					1
Lenticular cataract								2	2
Capsular cataract								3	3
Hemorrhage of retina		1		1					1
Amblyopia		1		1				2	3
Temporary blindness		1		1					1
Ametropia								1	1
Abscess of lachrymal sac		1	1						1
Blepharitis marginalis								1	1
Sty								1	1
Œdema of eyelid								1	1
DISEASES OF THE EAR		5		4			1	21	26
Inflammation of the external meatus—									
Acute		1					1	3	4
Abscess								1	1
Accumulation in external meatus of wax or epidermis								9	9
Inflammation of the middle ear—									
Nonsuppurative		1		1				7	8
Suppurative		3		3					3
Perforation of membrana tympani								1	1
DISEASES OF THE NOSE								31	31
Inflammation of soft parts								31	31
Diseases of septum		3		3				2	5
Epistaxis		1		1				2	3
Inflammation of the accessory sinuses		2		2					2

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.—Continued.

MIDDLE ATLANTIC—Continued.

Disease.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished officers' relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Diseases of the circulatory system.									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]									
[illegible]									
[illegible]									
[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
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TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE DIGESTIVE SYSTEM Continued.									
Inflammation of the tonsils									
Follicular		13	9	3			1	31	44
Suppuration		4	4					5	9
Elongated uvula								1	1
Inflammation of salivary glands								3	3
Inflammation of the pharynx—									
Catarrhal		6	2	4				38	44
Follicular		2	1	1				2	4
Ulcer of pharynx								1	1
Inflammation of the stomach—									
Catarrhal	1	21	7	13		1	1	47	69
Membranous or pellicular								1	1
Ulceration of the stomach—superficial								1	1
Hemorrhage of the stomach		1		1					1
Indigestion		5	2	2			1	122	127
Eructation								2	2
Pyrosis								1	1
Vomiting		1	1						1
Gastralgia								2	2
Loss of appetite								6	6
Inflammation of the intestines									
Enteritis		6	6					21	27
Typhlitis		6	3			2	1		6
Colitis		5	3			1	1	7	12
Catarrhal	1	5	4	2				9	15
Ulceration of intestines		1				1			1
Hemorrhage of intestines								1	1
Hernia	1	20	13	2	1	1	4	121	142
Intestinal dyspepsia								9	9
Constipation		1	1					63	64
Colic		1	1					2	3
Diarrhea		10	8	1		1		58	68
Enteralgia								2	2
Inflammation of the rectum								1	1
Periproctitis		1	1						1
Abscess		2	1	1				1	3
Fissure of the anus								2	2
Fistula in ano		6	2	3			1	3	9
Piles									
Internal		5	4				1	15	20
External		5	5					12	17
Mixed		2	2					2	4
Inflammation of the liver									
Acute		3		3				1	4
Chronic		3		1	1	1			3
Hyperæmia of the liver								7	7
Jaundice		1	1					8	9
Inflammation of hepatic ducts and gall bladder	1	3	2	1		1		6	10
Calculi		1	1						1
Biliary colic		3	3						3
DISEASES OF THE LYMPHATIC SYSTEM	7	64	49	18			4	71	142
Hypertrophy of spleen		1		1					1
Inflammation of lymph glands		48	38	6			4	71	119
Suppuration	7	15	11	11					22
DISEASES OF THE URINARY SYSTEM	2	28	5	20		3	2	56	86
Acute nephritis		1		1				1	2
Bright's disease		7		6		1		1	8
Chronic nephritis	2	10		8		2	2		12
Granular kidney								3	3

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901. Continued.

MIDDLE ATLANTIC. Continued.

[illegible]	Number of cases								
			Discharged						
	Remaining under treatment from previous year	Admitted during the year	Recovered	Improved	Not improved	Died	Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary
Diseases of the urinary system									
[illegible]								1	1
[illegible]		1	1					1	2
[illegible]									1
[illegible]									1
[illegible]									1
[illegible]		9	4	5				61	66
[illegible]								3	3
[illegible]								4	4
[illegible]								4	4
[illegible]									4
Diseases of the genital organs									
[illegible]	1	5	2	4			1	57	61
[illegible]		2	1	1				9	11
[illegible]		1						35	36
[illegible]		1							1
[illegible]									1
[illegible]	2	4	4	1				4	11
[illegible]									1
[illegible]									1
[illegible]		1	1						2
[illegible]								4	4
[illegible]	1			1					2
[illegible]								1	1
[illegible]	2	4	4					1	11
[illegible]								1	1
[illegible]								4	4
[illegible]								1	1
[illegible]	1	3	2	3				1	8
[illegible]	4	8	4	3			1	14	33
[illegible]		1			1			1	1
[illegible]		1	1					1	4
[illegible]								1	1
[illegible]								1	1
[illegible]								1	1
[illegible]		1	1		1			1	4
[illegible]	2	1		1					4
[illegible]		1	1					1	4
[illegible]								1	1
[illegible]		1	1	1				1	4
[illegible]								4	4
[illegible]									1
Diseases of the circulatory system									
[illegible]	1	1	1	1				1	4
[illegible]									1
[illegible]									1
[illegible]								1	4
[illegible]									1
[illegible]		1							1
[illegible]									1
[illegible]	1		1	1					4
[illegible]		1							1
[illegible]									1
[illegible]		1	1					1	4
[illegible]									1
[illegible]	1								1
[illegible]	1								1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE ORGANS OF LOCOMOTION—Continued.									
Myalgia	1	22	16	7				26	19
Lumbago		1		1				37	9
Inflammation of tendons		1		1				1	2
Contraction of tendons								1	1
Ganglion		1	1					2	3
Inflammation of bursæ									
Acute		1		1				6	2
Chronic								1	1
Abscess of bursæ								1	1
Bunion		1		1				1	2
Bursal cyst								2	2
Flat foot								2	2
DISEASES OF THE CONNECTIVE TISSUE.	5	51	37	15	1	1	2	77	13
Inflammation		12	8	3			1	46	6
Abscess	3	37	28	10	1		1	21	9
Gangrene	1		1						1
Œdema	1	2		2		1		1	4
DISEASES OF THE SKIN	3	58	34	21			6	239	20
Erythema		1		1				3	4
Emphysema		1		1					1
Urticaria								4	4
Prickly heat								4	4
Eczema		3	1	2				34	2
Impetigo								7	1
Pityriasis rubra								3	3
Prurigo								3	3
Psoriasis		1		1				5	6
Herpes		1	1					3	3
Zona		1	1					3	4
Pemphigus		1	1						1
Dermatitis herpetiformis		1	1					4	5
Acne								6	6
Gutta rosea								3	2
Sycosis								2	2
Ulcer	1	36	19	13			5	63	10
Boil	1	3	3	1				50	16
Carbuncle		3	2				1	18	12
Whitlow	1	4	5					11	16
Onychia								7	
Corn		2		2				3	5
Wen								1	1
Pruritus								3	3
Lupus								1	1
Injuries	13	238	164	73	5	0	9	[illegible]	410
GENERAL INJURIES		17	10	6			1	37	54
Effects of heat—Burns and scalds		12	7	5				27	9
Multiple injury		4	2	1			1		4
Suffocation		1	1						1
LOCAL INJURIES	13	221	154	67	5		8	522	36
Contusion of nerves		1		1					1
Compression of nerves		1	1					1	2
Strain of muscles		3	1	2				5	9
Wound of tendons								1	1
Abrasion of skin	1	6	6	1				4	11
Wound of skin		1	1					1	2
Burn or scald of skin		1	1					3	4
Frostbite		4	3	1				8	12
Wound of scalp								22	22
With injury to the aponeurosis		7	4	2			1		7

[illegible]II.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MIDDLE ATLANTIC—Continued.

Disease.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
[illegible]									
[illegible]		1		1					1
[illegible]		[illegible]	[illegible]					[illegible]	4
[illegible]		4	4				1	[illegible]	10
[illegible]		4	4					[illegible]	16
[illegible]	1	[illegible]	1	4				[illegible]	6
[illegible]								1	1
[illegible]								1	1
[illegible]								[illegible]	3
[illegible]		1	1					1	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible]									1
[illegible]		[illegible]	[illegible]					1	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				1	[illegible]
[illegible]		[illegible]	[illegible]	4			[illegible]	[illegible]	[illegible]
[illegible]		1	[illegible]	1					3
[illegible]		[illegible]	[illegible]	4				[illegible]	[illegible]
[illegible]		1	1					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]								[illegible]	1
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]									
[illegible]								[illegible]	1
[illegible]				[illegible]					1
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]			[illegible]			[illegible]	[illegible]
[illegible]				[illegible]				14	15
[illegible]									1
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]		[illegible]							[illegible]
[illegible]			[illegible]						1
[illegible]		[illegible]	[illegible]	[illegible]					[illegible]
[illegible]									
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]									1
[illegible]							[illegible]		1
[illegible]									
[illegible]	[illegible]	4	4						[illegible]
[illegible]									1
[illegible]			[illegible]					[illegible]	[illegible]
[illegible]				[illegible]					1
[illegible]					[illegible]			[illegible]	1
[illegible]	[illegible]	4	[illegible]	4	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]			4	[illegible]					14
[illegible]		[illegible]	[illegible]	4				[illegible]	21
[illegible]	2	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]	1	[illegible]	2						[illegible]
[illegible]	1						1		1
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]	1	4	[illegible]	[illegible]	1				[illegible]
[illegible]									
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]	[illegible]	[illegible]			[illegible]		[illegible]
[illegible]									1
[illegible]									
[illegible]			[illegible]						1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
TOTAL CASES	122	1,807	1,199	522	35	61	112	6,953	8,882
General Diseases	32	924	634	257	16	25	24	2,962	3,919
Smallpox		8	5	2		1		1	9
Cowpox								10	10
Chicken pox								2	2
Measles		16	15			1		3	19
Influenza		94	80	14				225	319
Mumps		12	12					4	16
Diphtheria		6	4		1	1			6
Enteric fever	1	31	23	4		4	1	1	32
Choleraic diarrhea		1	1					1	2
Dysentery		29	25	4				63	92
Malarial fever:									
Intermittent	10	239	257	15	2		5	791	1,039
Remittent	1	89	83	6		1		47	137
Erysipelas		8	4	4				3	11
Tetanus		1				1			1
Tubercle	7	51		32	7	14	5	51	109
Syphilis:									
Primary		15	2	11	1		1	54	69
Secondary	5	87	4	81	3	1	3	358	450
Inherited		5		5					5
Gonorrhea	4	80	43	39			2	668	752
Diseases dependent on animal parasites:									
Tænia solium		1			1			1	2
Tænia mediocanellata								1	1
Oxyuris vermicularis								1	1
Phthirius inguinalis								52	52
Bothriocephalus latus		1	1						1
Pulex penetrans								1	1
Sarcoptes scabiei		1	1					8	9
Diseases dependent on vegetable parasites:									
Tænia circinata		1		1				1	2
Tænia tonsurans								1	1
Tænia favosa								1	1
Effects of vegetable poisons:									
Tobacco		1			1			1	2
Rhus								3	3
Ol. tiglii								1	1
Effects of inorganic poisons—Mercury		1	1						1
Effects of the presence of foreign bodies		1	1					1	2
Effects of mechanical injuries		1		1				2	3
Effects of heat		2	2						2
Alcoholism	1	6	5	2				13	20
Rheumatic fever	2	25	17	8			2	19	46
Rheumatism		69	40	24			5	335	404
Gout								1	1
Cyst		1	1						1
Mucous								2	2
Sebaceous		1	1					2	3
New growth, nonmalignant:									
Lipoma		1	1					2	3
Chondroma		1	1						1
Myoma								1	1
Papilloma								23	23
Pterigium		1	1					1	2
New growth, malignant:									
Sarcoma		1		1				1	2
Carcinoma								2	2
Squamous carcinoma		1		1				1	2
Epithelioma		1	1					2	3

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.—Continued.

SOUTH ATLANTIC.—Continued.

[illegible]	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
[illegible]		2	1	1				1	9
[illegible]								1	1
[illegible]		1				1		1	4
[illegible]	1	1		1				6	9
Local Diseases	79	664	111	214	16	32	70	2,467	4,210
Diseases of the Nervous System	8	9	[illegible]	[illegible]	[illegible]	9	8	106	254
[illegible]									
[illegible] Neuritis	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		12	20
[illegible]									
[illegible]									
[illegible]								[illegible]	1
[illegible]									
[illegible]									
[illegible]									
[illegible]		[illegible]	[illegible]			[illegible]		[illegible]	[illegible]
[illegible]									
[illegible]	[illegible]	[illegible]							4
[illegible]	[illegible]					[illegible]			[illegible]
[illegible]									1
[illegible]									
[illegible]									
[illegible]	1	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]				[illegible]	11
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]					1
[illegible]									[illegible]
[illegible]									1
[illegible]								[illegible]	1
[illegible]		[illegible]	1	1					[illegible]
[illegible]			1					[illegible]	[illegible]
[illegible]				1				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									1
[illegible]		2		[illegible]					4
[illegible]									
[illegible]	[illegible]	[illegible]					[illegible]		[illegible]
[illegible]	[illegible]								
[illegible]									
[illegible]	[illegible]	[illegible]					[illegible]		[illegible]
[illegible]	[illegible]						[illegible]		[illegible]
[illegible]									
[illegible]									1
[illegible]	[illegible]								
[illegible]	[illegible]								1
[illegible]	[illegible]						[illegible]		
Diseases of the Eye	[illegible]	[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible]								[illegible]	[illegible]
[illegible]			[illegible]						
[illegible]									1
[illegible]								[illegible]	1
[illegible]		[illegible]					[illegible]		1
[illegible]		[illegible]	[illegible]	[illegible]					[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered	Improved.	Not improved.	Died.			
DISEASES OF THE EYE—Continued.									
Lenticular cataract	1						1	1	2
Amblyopia—Functional night blindness								1	1
Obstruction of nasal duct								1	1
Epiphora								1	1
Blepharitis marginalis								5	5
Sty								5	5
Abscess of eyelid								1	1
Œdema of eyelid								1	1
DISEASES OF THE EAR		12	7	5				53	65
Inflammation of the external meatus—									
Acute		2	2					7	9
Abscess								1	1
Accumulation in external meatus of wax or epidermis		2	2					12	14
Inflammation of the middle ear									
Nonsuppurative		5	3	2				25	30
Suppurative		2		2				4	6
Within the mastoid cells		1		1					1
Perforation of membrana tympani								2	2
Tinnitus								2	2
DISEASES OF THE NOSE		3	1		2			45	48
Inflammation of soft parts								45	45
Inflammation of framework		3	1		2				3
Diseases of septum		1	1					2	3
Epistaxis		1	1					1	2
Inflammation of the accessory sinuses								1	1
DISEASES OF THE CIRCULATORY SYSTEM	3	19		18		3	1	47	69
Endocarditis								1	1
Valvular disease—									
Aortic		9		7		2		1	10
Mitral	2	4		5		1		12	18
Aortic and mitral		3		2			1	2	5
Hypertrophy of heart								2	2
Dilatation of heart		1		1				1	2
Disordered action of the heart—									
Abnormal rapidity								8	8
Irregularity		1		1				6	7
Aneurism of arteries								8	8
Obstruction of arteries—Thrombosis	1			1				1	2
Varix		1		1				4	5
Obstruction of veins								1	1
DISEASES OF THE RESPIRATORY SYSTEM	4	115	76	26	3	13	1	572	691
Inflammation of mucous membrane of larynx—Catarrhal, acute		1		1				2	3
Bronchitis—									
Catarrhal, acute		43	35	8				508	551
Catarrhal, chronic	3	5		3	2	3		21	29
Spasmodic asthma		5	2	2		1		11	16
Congestion of lung								1	1
Hemorrhage of lung								3	3
Pneumonia		38	26	3		8	1	2	40
Broncho-pneumonia		1	1						1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC—Continued.

Cause.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Diseases of the respiratory system—Continued.									
[illegible]									
[illegible]									
[illegible]				[illegible]					1
[illegible]	1	[illegible]		[illegible]	1			[illegible]	9
[illegible]		[illegible]	[illegible]	[illegible]					[illegible]
[illegible]									
[illegible]		6	[illegible]	[illegible]		[illegible]		[illegible]	31
[illegible]		[illegible]						[illegible]	3
[illegible]				[illegible]					1
Diseases of the digestive system	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]								[illegible]	13
[illegible]								4	4
[illegible]								44	44
[illegible]				[illegible]					1
[illegible]			[illegible]					[illegible]	3
[illegible]			[illegible]					[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	3
[illegible]								[illegible]	26
[illegible]								[illegible]	1
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]				[illegible]					1
[illegible]									
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]								1	4
[illegible]									
[illegible]		4	4					[illegible]	[illegible]
[illegible]									1
[illegible]									
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]									1
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	9
[illegible]									
[illegible]		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				4	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]				[illegible]	[illegible]
[illegible]					[illegible]				1
[illegible]									1
[illegible]			[illegible]						1
[illegible]								[illegible]	[illegible]
[illegible]		4	4					[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]			[illegible]	1				[illegible]	[illegible]
[illegible]	[illegible]								4
[illegible]									[illegible]
[illegible]	[illegible]		[illegible]	[illegible]				4	[illegible]
[illegible]			[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]			[illegible]	[illegible]					[illegible]
[illegible]									1
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]								4	[illegible]
[illegible]		[illegible]	[illegible]	1					[illegible]
[illegible]									1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE DIGESTIVE SYSTEM Continued.									
Inflammation of the liver—									
Acute		4	1	3				3	
Chronic								1	1
Hyperæmia of the liver		2	2					10	12
Jaundice								2	
Inflammation of hepatic ducts and gall bladder	1	3		3				3	
Calculi		1		1					1
Biliary colic		1							1
DISEASES OF THE LYMPHATIC SYSTEM	3	44	31	14			2	144	151
Inflammation of lymph glands	1	25	15	9			2	114	10
Suppuration	2	18	16	4				23	6
Hypertrophy of lymph glands								5	5
Inflammation of lymphatics		1		1				2	1
DISEASES OF THE URINARY SYSTEM	1	32	5	16	1	5	6	38	12
Acute nephritis		2	1	1				4	6
Bright's disease		11		8		2	1	2	12
Chronic nephritis		10		4		2	4	4	14
Congestion of kidney								2	1
Calculus in ureter								2	1
Hæmaturia								6	6
Lithuria								3	1
Nephralgia								4	4
Inflammation of bladder—									
Acute	1	8	4	3	1	1		46	2
Chronic		1					1	2	1
Calculus of bladder								1	1
Irritability of bladder								8	4
Incontinence of urine								4	1
DISEASES OF THE GENERATIVE SYSTEM	16	122	91	36	2	1	8	480	62
Urethritis		1		1				20	2
Gleet								21	2
Hemorrhage of the urethra								1	
Stricture of urethra—organic	4	30	21	10			3	59	9
Urethral fistula	1		1						
Inflammation of the prostate—									
Acute								1	
Chronic								1	
Hypertrophy of the prostate								1	
Posthitis								1	
Phimosis		3	2		1			1	
Inflammation of the penis								1	
Of the glans		4	3	1				21	1
Ulcer of penis	4	10	4	10				53	4
Œdema of penis		2		2				3	
Soft chancre	7	53	48	8			4	210	2
Inflammation of the scrotum								1	
Abscess of the scrotum								1	
Pruritus of the scrotum								3	
Varicocele								22	
Hydrocele of tunica vaginalis		3	1	1	1			12	
Acute orchitis		14	10	3			1	31	
Epididymitis		2	1			1		6	
Spermatorrhea								3	
Impotence								5	
Displacements and distortions of the uterus								1	
Metrorrhagia								1	

VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC—Continued.

Diseases.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished [illegible]	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
[illegible]									
[illegible]	4	39	39	[illegible]	[illegible]		4	39	82
[illegible]									
[illegible]		2						[illegible]	2
[illegible]								[illegible]	6
[illegible]	1	2		2				1	4
[illegible]									
[illegible]		2					1	[illegible]	2
[illegible]								1	1
[illegible]	1	2	1		2			1	6
[illegible]		1	1						1
[illegible]		1					1		1
[illegible]								[illegible]	6
[illegible]									1
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible]								[illegible]	6
[illegible]		1		1					1
[illegible]									1
[illegible]								[illegible]	6
[illegible]								[illegible]	2
[illegible]									1
[illegible]									1
[illegible]									1
[illegible]									1
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									1
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]			1					[illegible]	[illegible]
[illegible]		4	4					[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									1
[illegible]									[illegible]
[illegible]		1							[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									1
[illegible]									[illegible]
[illegible]									1
[illegible]									1
[illegible]									[illegible]
[illegible]		1						[illegible]	[illegible]
[illegible]		1						[illegible]	[illegible]
[illegible]			[illegible]						[illegible]
[illegible]				[illegible]			[illegible]		[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									1
[illegible]								[illegible]	[illegible]
[illegible]									1
[illegible]									[illegible]
[illegible]									1
[illegible]									[illegible]
[illegible]	11	[illegible]	[illegible]	[illegible]	3	6	18	[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
GENERAL INJURIES	1	15	11	1		3	1	23	39
Effects of heat—									
Burns and scalds		8	6	1			1	23	31
Heat stroke		2	2						2
Sunstroke		2				2			2
Effects of cold		1	1						1
Multiple injury	1	2	2			1			3
LOCAL INJURIES	10	204	143	50	3	1	17	500	714
Contusion of nerves								1	1
Contusion of muscles								2	2
Strain of muscles		2	1	1				16	18
Strain of tendons								2	2
Abrasion of skin								3	3
Wound of skin								1	1
Frostbite	1	9	8	1			1	14	24
Effects on the skin of irritants or corrosives								1	1
Effects on the mucous membrane of irritants or corrosives								1	1
Contusion of scalp								3	3
Wound of scalp		7	5	1			1	24	31
With injury to the aponeurosis								2	2
With injury to the pericranium		1		1					1
Wound of skull		1					1		1
Concussion of brain		6	5			1			6
Penetrating wound of brain		1		1					1
Contusion of face								8	8
Wound of face and mouth		4	4					12	16
Fracture of facial bones	1		1					1	2
Contusion of eyelid								2	2
Wound of conjunctiva								2	2
Foreign bodies in the conjunctiva or cornea								12	12
Wound of eyeball		2	1	1				1	3
Contusion of pinna								2	2
Contusion of neck								1	1
Wound of neck		1	1						1
Contusion of chest								15	15
Dislocation of costal cartilages		2	1	1				1	3
Fracture of ribs		5	4	1				3	8
Contusion of back		7	6	1				17	24
Sprain of back		4	2	2				31	35
Contusion of abdomen		2	2					1	3
Wound of the male urethra, perineum, scrotum, testis, or penis		1					1	1	2
Contusion of testicle								4	4
Contusion of upper extremities		3	1	2				44	47
Sprain of shoulder		2		1			1	5	7
Sprain of elbow								3	3
Sprain of wrist		5	3	1			1	11	16
Sprain of thumb								4	4
Sprain of fingers								1	1
Wound of upper extremities	1	45	34	10			2	142	189
Fracture of clavicle	1	1	2					1	3
Fracture of scapula		2	1	1					2
Fracture of humerus		5	1	3	1				5
Fracture of bones of forearm—									
Radius		2	2					1	3
Ulna		5	2	3				1	6
Both bones		5	3	1			1		5
Fracture of carpus, metacarpus, or phalanges		1	1					2	3
Dislocation of humerus		2	1				1		2

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

SOUTH ATLANTIC—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Local injuries—Continued.									
Dislocation of radius and ulna		1	1						1
Dislocation of carpus		1			1				1
Contusion of lower extremities		[illegible]	[illegible]	[illegible]			1	61	[illegible]
Sprain of hip		[illegible]	[illegible]						1
Sprain of knee		[illegible]	1	1				[illegible]	9
Sprain of ankle	1	[illegible]	[illegible]					15	23
Sprain of foot								2	[illegible]
Internal derangement of joints		[illegible]					1		1
Wound of lower extremities	1	[illegible]	21	4	1		1	29	[illegible]
Fracture of femur	2	4	4	1			1	2	[illegible]
Fracture of patella		[illegible]		1					1
Fracture of tibia	1		[illegible]					1	[illegible]
Fracture of tibia and fibula		2	[illegible]						[illegible]
Fracture of bones of foot		[illegible]	[illegible]	2			4		[illegible]
[illegible]			[illegible]	1					1

GULF.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Total cases	77	1,418	962	402	22	43	65	5,102	6,597
General Diseases	29	698	484	188	11	14	29	1,995	2,721
[illegible]									1
[illegible]								[illegible]	16
[illegible]		2	[illegible]					[illegible]	29
Influenza	[illegible]	[illegible]	[illegible]	4				[illegible]	117
[illegible]								[illegible]	2
[illegible]		[illegible]	[illegible]					1	6
[illegible]		1	1		1				4
[illegible]		[illegible]	[illegible]	1				6	[illegible]
[illegible]		[illegible]	1					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	4		[illegible]	4	[illegible]	[illegible]
Malarial fever:									
Intermittent fever	[illegible]	90	[illegible]	14	[illegible]		[illegible]	446	[illegible]
Remittent fever	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	2	[illegible]	167
[illegible]		1	1						1
[illegible]		2	1			[illegible]		[illegible]	4
[illegible]		1				[illegible]			1
[illegible]	2	[illegible]	[illegible]	51		4	2	[illegible]	[illegible]
[illegible]		[illegible]		[illegible]					1
Syphilis:									
Primary								[illegible]	[illegible]
Secondary	4	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
Gonorrhea	4	[illegible]	9	[illegible]				[illegible]	[illegible]
Diseases dependent on animal parasites:									
[illegible]			[illegible]						4
[illegible]									1
[illegible]		1							1
[illegible]									[illegible]
[illegible]								[illegible]	4
Diseases dependent on vegetable parasites:									
[illegible]								[illegible]	14
[illegible]									1
Effects of chemical poisons:									
[illegible]									
[illegible]									1
Effects of vegetable poisons:									
Morphine								[illegible]	[illegible]
Alcohol		1	[illegible]						1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Effects of inorganic poisons—lead								2	2
Effects of the presence of foreign bodies								3	3
Effects of heat	1	5	5	1				3	9
Scurvy		14	9	3			2	10	18
Rheumatic fever	1	15	10	5		1		6	22
Rheumatism	2	57	25	32			2	313	32
Osteoarthritis								1	1
Cyst:									
Mucous								2	2
Sebaceous		1	1					4	5
New growth, nonmalignant:									
Lipoma								1	1
Fibroma		1	1					1	2
Osteoma								2	2
Enchondroma		1	1						1
Papilloma		2	2					13	15
Pteryguim								2	2
New growth, malignant:									
Epithelioma		3	1	1			1	1	4
Carcinoma		1				1			1
Squamous carcinoma								7	7
Rodent ulcer								1	1
Myxœdema		1					1		1
Anæmia		1		1				2	3
Chlorosis		1	1						1
Diabetes mellitus								6	6
Diabetes insipidus								2	2
Debility		1		1				19	20
Local Diseases	**37**	**538**	**330**	**172**	**12**	**27**	**34**	**2,600**	**3,175**
DISEASES OF THE NERVOUS SYSTEM	6	38	11	18	2	6	7	222	28
Of the nerves—									
Inflammation—									
Neuritis		3		3				1	4
Multiple neuritis		1					1		1
Of the spinal cord and membranes—									
Cord—									
Inflammation, local								1	1
Degeneration—									
Of posterior columns		2		2				5	7
Of lateral and posterior columns		1	1						1
Of the brain and its membranes—									
Membranes—									
Inflammation of dura mater	1						1		1
Of the brain and its membranes—									
Brain—									
Inflammation									
Diffuse		1				1			1
Acute		1	1						1
Hemorrhage	1	2				1	2		3
Functional nervous disorders, with other diseases of undetermined nature									
Apoplexy								9	9
Paralysis—									
Paraplegia	1	1	1			1			2
Hemiplegia	1	3	2		1	1		1	5
Local paralysis		5	1	3		1		4	9
Spasm								1	1
Eclampsia uræmic		1				1			1
Epilepsy		3		2			1	1	4
Vertigo		1	1					2	3

VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

Diseases.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished officers relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Diseases of the Nervous System and Its Appendages.									
Diseases not included in others with no determination of nature of disease.									
[illegible]									
[illegible]									
[illegible]									10
[illegible]									
[illegible]		4	1	1				15	72
[illegible]	1	1		1	1			15	92
[illegible]									
[illegible]	1	1	1	1					[illegible]
[illegible]		1					1		
[illegible]								1	[illegible]
[illegible]									
[illegible]		1	1	2				2	46
[illegible]			1					2	44
[illegible]									[illegible]
[illegible]			1	1					[illegible]
[illegible]			1						[illegible]
[illegible]		1		1				1	[illegible]
[illegible]									[illegible]
[illegible]								1	[illegible]
[illegible]								1	[illegible]
[illegible]								1	[illegible]
[illegible]								1	[illegible]
[illegible]		4	1	1				2	51
[illegible]									
[illegible]								1	[illegible]
[illegible]		1		1				1	17
[illegible]		1	1	1				1	15
[illegible]				1				1	9
[illegible]									
[illegible]								1	1
Diseases of the Nose.									
[illegible]								2	2
[illegible]									1
[illegible]									
Diseases of the Circulatory System.									
[illegible]	1	5		2				4	31
[illegible]		1							1
[illegible]									
[illegible]		1							6
[illegible]		3					1	1	15
[illegible]	1	1		1		1		1	17
[illegible] fatty								1	1
[illegible]									1
[illegible]		1							1
[illegible]								1	1
[illegible]									
[illegible] fatty									1
[illegible]								1	1
[illegible]									
[illegible]		1							2
[illegible]		1				1			1
[illegible]	1	1		1				1	1
[illegible] thrombosis		1		1					1
[illegible]								1	1
[illegible]		4		4				1	1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE RESPIRATORY SYSTEM	3	71	55	14	1	1	3	400	61
Inflammation of mucous membrane of larynx—Catarrhal, acute								3	3
Bronchitis—									
Catarrhal, acute		25	20	4			1	329	34
Catarrhal, chronic		4		4				28	12
Spasmodic asthma	1	3	1	3				13	17
Hemorrhage of lung		3	3					2	5
Hæmoptysis								1	1
Emphysema	1		1					4	5
Œdema of lungs		1			1				1
Pneumonia	1	23	21	1		1	1	3	2
Broncho-pneumonia		2	1	1					2
Abscess of lung		1		1					1
Chronic interstitial inflammation		1					1		1
Phthisis-									
Acute								3	3
Tubercular								1	1
Pleurisy-									
Acute		7	7					18	25
Chronic		1	1						1
DISEASES OF THE DIGESTIVE SYSTEM	7	131	101	21	2	7	7	808	1,08
Inflammation of the mouth								2	2
Caries of dentine and cementum		1	1					27	28
Inflammation of the dental periosteum								2	2
Abscess of dental periosteum								7	7
Inflammation of gums and alveoli								1	1
Suppuration of alveoli								1	1
Toothache								18	18
Ulceration of the tongue								1	1
Sore throat								4	4
Inflammation of the tonsils—									
Follicular		4	4					10	18
Suppuration		2	2						2
Elongated uvula								2	2
Inflammation of salivary glands								1	1
Inflammation of the pharynx—									
Catarrhal		1	1					24	25
Follicular		2	2					2	4
Ulceration of pharynx		1	1						1
Inflammation of the stomach—Catarrhal	1	14	10	5				28	6
Ulceration of the stomach—Superficial								1	1
Dilatation of the stomach								1	1
Indigestion		8	8					229	2
Gastralgia								1	1
Inflammation of the intestines—									
Enteritis		2	2						2
Typhlitis		2	1			1			2
Colitis		1	1					1	2
Catarrhal		6	6					10	16
Fecal accumulation		5	5					2	7
Tympanites								1	1
Hernia	3	9	7	3			2	105	19
Obstruction of the intestines		1	1						1
Stricture intestines		2		1		1			2
Intestinal dyspepsia		1	1					3	4
Constipation		4	3				1	217	2
Colic		3	2				1	2	5
Diarrhea	1	17	17	1				29	3

VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

Diseases.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE DIGESTIVE SYSTEM.									
[illegible]		[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]				[illegible]		[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]				[illegible]			[illegible]
[illegible]		[illegible]		[illegible]	[illegible]	[illegible]			[illegible]
DISEASES OF THE RESPIRATORY SYSTEM.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
DISEASES OF THE REPRODUCTIVE SYSTEM.									
[illegible]		[illegible]				[illegible]			[illegible]
[illegible]									
[illegible]		[illegible]		[illegible]					
[illegible]	[illegible]			[illegible]		[illegible]		[illegible]	
[illegible]		[illegible]		[illegible]					
[illegible]				[illegible]					
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
DISEASES OF THE [illegible] SYSTEM.									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE GENERATIVE SYSTEM—Continued.									
Ulcer of the penis	1	7	5	3				4	12
Soft chancre	8	24	12	17	1	1	1	102	124
Sloughing of the scrotum		1	1						1
Pruritis of the scrotum								1	1
Hæmatocele of the spermatic cord								2	2
Varicocele		2	2					5	7
Hydrocele of tunica vaginalis		1		1				1	2
Inflammation of the testicle—									
Acute orchitis	1	10	6	4			1	16	27
Epididymitis		3	3					2	5
Impotence								7	7
Œdema of the scrotum								1	1
Inflammation of the ovary		1		1					1
DISEASES OF THE ORGANS OF LOCOMOTION	1	28	16	7	1		5	165	194
Inflammation of the bones—									
Osteitis								1	1
Periostitis		1		1					1
Caries		3	1				2		3
Necrosis		7	5	1			1		7
Mollities ossium		1					1		1
Inflammation of joints—									
Acute synovitis		6	5				1	9	15
Chronic synovitis		2		2					2
Ankylosis								2	2
Psoas, lumbar, and other abscesses								2	2
Posterior curvature of spine		1			1				1
Suppuration of muscles								1	1
Myalgia		6	4	2				141	147
Lumbago		1		1				3	4
Inflammation of tendons								1	1
Thecal abscess	1		1						1
Inflammation of bursæ—Acute								2	2
Inflammation mammary glands								1	1
Hypertrophy male breast								2	2
DISEASES OF THE CONNECTIVE TISSUE	1	36	28	8			1	52	89
Inflammation	1	10	9	2				24	35
Abscess		26	19	6			1	28	54
DISEASES OF THE SKIN	1	43	31	10	1		2	307	351
Erythema		2	2					5	7
Urticaria								10	10
Prickly heat								11	11
Eczema		5	4		1			49	54
Prurigo								9	9
Lichen								2	2
Psoriasis								8	8
Molluscum contagiosum								1	1
Sudamina								1	1
Herpes								10	10
Zona		1	1					2	3
Pemphigus								3	3
Dermatitis herpetiformis								1	1
Acne								1	1
Sycosis								1	1
Seborrhœa								4	4
Alopecia								1	1
Chilblain								4	4
Ulcer	1	20	14	6			1	90	111
Boil		6	4	2				41	47

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

Disease.	Number of cases: Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Diseases of the [illegible]									
[illegible]		1	1					[illegible]	11
[illegible]		[illegible]	[illegible]	1				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					1	[illegible]
[illegible]								1	3
[illegible]								1	1
[illegible]		[illegible]		[illegible]			1	[illegible]	[illegible]
Injuries	12	182	148	42		2	2	507	701
General injuries	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]							1
[illegible]									
[illegible]								[illegible]	1
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
Local injuries	11	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]									1
[illegible]								[illegible]	1
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						1
[illegible]								[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]		1				[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible]	[illegible]	[illegible]	[illegible]					[illegible]	5
[illegible]		[illegible]	[illegible]					[illegible]	11
[illegible]		[illegible]	[illegible]						1
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						1
[illegible]									[illegible]
[illegible]									
[illegible]									[illegible]
[illegible]									1
[illegible]									1
[illegible]									1
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									
[illegible]									1
[illegible]									
[illegible]	[illegible]		[illegible]						[illegible]
[illegible]		[illegible]				[illegible]			[illegible]
[illegible]									[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		1							[illegible]
[illegible]									1
Sprain of fingers								[illegible]	1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GULF—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
LOCAL INJURIES—Continued.									
Wound of upper extremities	1	45	31	14		1		93	139
Fracture of clavicle	1	2	2	1				4	7
Fracture of humerus	1		1					1	2
Fracture of bones of forearm:									
Ulna		3	1	1			1		3
Both bones		2	2						2
Fracture of carpus, metacarpus, or phalanges		1		1				2	3
Dislocation of clavicle		1	1						1
Dislocation of humerus		5	4	1					5
Contusion of lower extremities		11	11					37	48
Sprain of hip								4	4
Sprain of knee		1	1					8	9
Sprain of ankle	1	13	11	3				8	22
Sprain of foot								2	2
Wound of lower extremities	3	17	17	2			1	33	53
Fracture of femur	1	1	2						2
Fracture of patella		1	1						1
Fracture of tibia	1	2	1	2					3
Fracture of fibula		2	1	1					2
Fracture of tibia and fibula		4	4					2	6
Dislocation of femur		1	1						1

OHIO.

TOTAL CASES	38	1,107	764	287	18	25	51	4,194	5,339
General Diseases	18	444	303	131	6	8	14	1,774	2,296
Smallpox	2	7	8		1			2	11
Cowpox		1		1				15	16
Chickenpox		1	1						1
Influenza		70	63	6	1			176	246
Mumps		4	4					7	11
Diphtheria		1	1					1	2
Enteric fever	4	16	17	1		1	1		20
Dysentery	3	18	20				1	25	46
Malarial fever:									
Intermittent		75	65	9			1	302	377
Remittent		14	12				2	9	23
Erysipelas		4	4					2	6
Tubercle	1	85		24	2	7	3	56	92
Syphilis:									
Primary		6	3	3				4	10
Secondary	2	53	1	50	1		3	297	352
Gonorrhea	2	18	9	11				399	419
Diseases dependent on animal parasites:									
Tænia solium								1	1
Sarcoptes scabiei								1	1
Diseases dependent on vegatable parasites:									
Trichophyton tonsurans		1	1					3	4
Effects of vegetable poisons:									
Tobacco								1	1
Cocaine		1	1						1
Effects of heat								1	1
Alcoholism		19	17	2				16	35
Rheumatic fever		8	6	1			1		9
Rheumatism	4	85	69	18			2	408	497
Cyst, sebaceous								1	1

VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

OHIO—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
[illegible] gonorrheal									
[illegible]		1	1						1
[illegible]								[illegible]	[illegible]
[illegible] gonorrheal									
[illegible]		1			1		[illegible]		1
[illegible]								1	1
[illegible]		2		2					2
[illegible]								2	2
[illegible]		1		1				[illegible]	[illegible]
General Diseases	16	[illegible]	326	124	12	14	[illegible]	2,095	2,599
DISEASES OF THE NERVOUS SYSTEM	4	[illegible]	[illegible]	[illegible]			7	[illegible]	[illegible]
[illegible]									
Inflammation [illegible]		2	[illegible]					4	[illegible]
[illegible]									
[illegible]									
Inflammation, hemorrhage		[illegible]	[illegible]						1
[illegible]									
[illegible]		1		[illegible]					1
[illegible]	1	4		1			[illegible]	[illegible]	14
[illegible] with [illegible]									
[illegible] undetermined									
[illegible]									
Paralysis									
[illegible]	1						[illegible]		1
[illegible]		1		1					1
[illegible]								1	1
[illegible]		1	1						1
[illegible]								1	1
[illegible]								1	1
[illegible]								12	12
[illegible]								1	1
Neuralgia		[illegible]	4				[illegible]	[illegible]	[illegible]
[illegible]		2		1				4	[illegible]
DISEASES OF THE EYE	[illegible]	[illegible]	4	4				[illegible]	[illegible]
[illegible]								21	[illegible]
[illegible] catarrhal		[illegible]	[illegible]						1
[illegible]								[illegible]	[illegible]
[illegible]	1			1					[illegible]
[illegible]		1							[illegible]
[illegible]									[illegible]
[illegible]	1	4	2	[illegible]					[illegible]
[illegible]									[illegible]
[illegible]									1
[illegible]									1
[illegible]									
[illegible]									[illegible]
DISEASES OF THE EAR								[illegible]	[illegible]
[illegible] of the external [illegible]									
[illegible]								[illegible]	1
[illegible] external meatus									
[illegible]								[illegible]	2
[illegible] of the middle ear									
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	1
DISEASES OF THE NOSE		2					[illegible]	[illegible]	[illegible]
[illegible] of soft parts		2		[illegible]			1	[illegible]	[illegible]
[illegible]								4	4
[illegible]									1
[illegible]								1	1
Inflammation of the nasopharynx								[illegible]	2

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

OHIO—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE CIRCULATORY SYSTEM		32	1	12	1	7	1	34	36
Pericarditis		1				1			1
Endocarditis		1		1					1
Valvular disease—									
Aortic		3		2		1		1	4
Mitral		6		2		3	1	18	24
Aortic and mitral		2		1		1			2
Inflammation muscular substance of heart								1	1
Hypertrophy of heart								2	2
Dilatation of heart		2		2				3	5
Disordered action of the heart—									
Abnormal rapidity		1		1				2	3
Irregularity								1	1
Arteritis—Degeneration of arteries								1	1
Aneurism of arteries		4		2	1	1		2	6
Phlebitis		1	1					3	4
Varix		1		1					1
DISEASES OF THE RESPIRATORY SYSTEM		92	66	17	1	6	2	456	548
Hay fever								1	1
Inflammation of mucous membrane of larynx—Catarrhal, acute		1		1				3	4
Bronchitis—									
Catarrhal, acute		45	39	5			1	420	465
Catarrhal, chronic		6	1	4			1	10	16
Spasmodic asthma		3	1	2				18	21
Congestion of lung		1				1			1
Hemorrhage of lung—Hæmoptysis								1	1
Pneumonia		25	18	1	1	5			25
Phthisis—Tubercular		1		1					1
Pleurisy—									
Acute		7	6	1				3	10
Chronic		3	1	2					3
DISEASES OF THE DIGESTIVE SYSTEM	1	101	70	24	4		4	701	802
Inflammation of the mouth								2	2
Ulceration of the mouth								3	3
Caries of dentine and cementum								4	4
Inflammation of the dental periosteum		1	1					1	2
Abscess of dental periosteum		1	1					5	6
Ulceration of gums and alveoli								1	1
Toothache								7	7
Sore throat								8	8
Inflammation of the tonsils									
Follicular		11	11					51	62
Suppuration		2	1	1					2
Inflammation of the pharynx								26	26
Ulceration of pharynx								1	1
Inflammation of the stomach—catarrhal		5	1	3			1	119	124
Ulceration of the stomach—superficial								1	1
Indigestion		4	3	1				82	86
Gastralgia								2	2
Loss of appetite								3	3
Inflammation of the intestines—									
Enteritis		8	6	2				53	61
Typhlitis		2	2						2
Colitis		2	1	1				1	3
Catarrhal	1	21	18	3			1	40	62

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

OHIO—Continued.

	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished [illegible]	Number treated in hospital and dispensary
			Recovered	Improved	Not improved	Died			
Diseases of the respiratory system									
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]					[illegible]				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]					[illegible]				[illegible]
[illegible]									[illegible]
[illegible]		[illegible]							[illegible]
Diseases of the digestive system		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									
Diseases of the [illegible] system		[illegible]		[illegible]					[illegible]
[illegible]									[illegible]
Diseases of the urinary system		[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]
[illegible]									[illegible]
[illegible]				[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]							[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
Diseases of the generative system		[illegible]	[illegible]		[illegible]			[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]							[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

OHIO—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE GENERATIVE SYSTEM—Continued.									
Inflammation of the testicle									
Acute orchitis		18	17					27	6
Chronic orchitis		2			2				2
Epididymitis		2	2					1	3
Spermatorrhea								2	2
Impotence								2	2
Gangrene of penis		1					1		1
Inflammation of the ovary								1	1
Inflammation of the uterus								1	1
Dysmenorrhea								1	1
Leucorrhea		1	1					4	5
DISEASES OF THE ORGANS OF LOCOMOTION		25	18	6				157	12
Inflammation of the bones—periostitis								2	2
Caries		1	1						1
Necrosis		1	1						1
Ununited fracture or false joint		1	1						1
Inflammation of joints—acute synovitis		3	1	2				4	7
Anchylosis		1							1
Psoas, lumbar, and other abscesses		2	1					4	6
Myalgia		12	10	2				122	12
Lumbago		1		1				24	25
Inflammation of tendons								1	1
Inflammation of bursæ—acute		2	2						2
Bunion		1	1						1
DISEASES OF THE CONNECTIVE TISSUE	1	33	27	5			2	38	70
Inflammation	1	13	12	2				12	27
Abscess		19	14	3			2	22	41
Gangrene		1	1						1
Œdema								1	1
DISEASES OF THE SKIN	2	30	22	8			2	161	193
Urticaria		1	1					11	12
Prickly heat								4	4
Eczema		2	1	1				36	38
Prurigo								2	2
Psoriasis								1	1
Herpes								9	9
Zona								2	2
Acne								4	4
Sycosis								3	3
Ichthyosis								1	1
Ulcer	1	20	15	4			2	41	62
Boil	1	3	3	1				34	38
Carbuncle		1	1					3	4
Whitlow		3	1	2				2	5
Onychia								2	2
Corn								1	1
Wen								2	2
Pruritus								3	3
Injuries	4	175	135	32		4	9	325	504
GENERAL INJURIES		14	11	2		1		27	41
Effects of heat—									
Burns and scalds		10	8	2				26	26
Heat stroke		1	1						1
Effects of chemical irritants and corrosives								1	1

TABLE XII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

OHIO—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharges: Recovered.	Discharges: Improved.	Discharges: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MISSISSIPPI.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
TOTAL CASES	57	1,328	913	366	21	48	37	4,134	5,519
General Diseases	32	721	529	166	13	22	23	2,346	3,009
Smallpox		9	8		1			2	11
Cowpox								394	394
Chicken pox		1	1						1
Influenza		44	38	5		1		98	142
Mumps		1	1					2	3
Diphtheria		2	2						2
Simple continued fever		1	1						1
Enteric fever	1	20	15	2		2	2	1	22
Dysentery	2	15	16	1				15	32
Malarial fever:									
Intermittent	7	311	292	18	1		7	664	982
Remittent		17	10	4		2	1	3	20
Erysipelas		11	10				1	7	18
Septicæmia		2	1				1		2
Tubercle	9	44	4	28	4	13	4	28	81
Syphilis:									
Primary		2		2				37	39
Secondary	8	80		78	3	1	6	305	393
Gonorrhea		23	16	7				282	305
Diseases dependent on animal parasites:									
Tænia solium		5	4		1			4	9
Phthirius inguinalis								2	2
Sarcoptes scabiei								2	2
Diseases dependent on vegetable parasites:									
Trichophyton tonsurans								9	9
Effects of vegetable poisons:									
Opium		1	1						1
Rhus								1	1
Effects of inorganic poisons—Lead		1		1				1	2
Effects of heat		1					1		1
Effects of excessive exertions and strain		2	2						2
Alcoholism		20	19	1				17	37
Rheumatic fever		19	18	1				4	23
Rheumatism	5	78	65	15	2	1		390	473
Cyst, Sebaceous		1		1				1	2
New growth, nonmalignant.									
Lipoma								5	5
Fibroma		1	1						1
Papilloma		2		2				3	5
New growth, malignant.									
Sarcoma		1			1				1
Squamous carcinoma		1	1					2	3
Glandular carcinoma		1				1			1
Anæmia								3	3
Diabetes mellitus								3	3
Diabetes insipidus								1	1
Congenital malformations		1	1						1
Debility		3	2			1		61	64
Local Diseases	19	438	259	159	7	21	11	1,526	1,983
DISEASES OF THE NERVOUS SYSTEM		24	6	14	1	2	1	44	68
Of the nerves—									
Inflammation—Neuritis		2	1	1					2
Of the spinal cord and membranes—									
Cord—									
Inflammation—Local		1		1					1
Degeneration—									
Of posterior columns		3		3				1	4
Of lateral and posterior columns		1		1					1

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.—Continued.

MISSISSIPPI.—Continued.

Diseases.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Diseases of the Nervous System.									
[illegible]									
[illegible]									
[illegible]									
[illegible]			1						1
[illegible]									
[illegible]									
[illegible]									1
[illegible]									
[illegible]									
[illegible]									
[illegible]						1			1
[illegible]								[illegible]	1
[illegible]								[illegible]	1
[illegible]								[illegible]	1
[illegible]		1		1			1		3
[illegible]									1
[illegible]					1				1
[illegible]		1	1	1				[illegible]	4
[illegible]									1
[illegible]								[illegible]	1
Diseases of the Eye.		1	1	1				1	4
[illegible]		1						[illegible]	1
[illegible]									1
Diseases of the Ear.		1	1	1				1	5
[illegible]									
[illegible]									1
[illegible]		1							1
[illegible]									
[illegible]								1	1
[illegible]									
[illegible]		1		1					1
[illegible]									1
Diseases of the Nose.								1	1
[illegible]									
[illegible]									
[illegible]									1
[illegible]								1	2
Diseases of the Circulatory System.	1	3	1					1	6
[illegible]								1	1
[illegible]	1	1		1				1	4
[illegible]				1					1
[illegible]									1
[illegible]									1
[illegible]		1							1
[illegible]									1
[illegible]								1	1
[illegible]		1						1	4
[illegible]									1
Diseases of the Respiratory System.		2	1	1				1	6
[illegible]		1	1						4

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MISSISSIPPI—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE RESPIRATORY SYSTEM—Continued.									
Bronchitis—									
Catarrhal, acute		28	24	4				277	35
Catarrhal, chronic		4	1	3				8	12
Spasmodic asthma		6	4	2				6	12
Pneumonia		23	15	1		6	1	2	25
Phthisis—Acute	1	6	4	2		1		23	30
Emphysema, vesicular		2	2						2
Empyema		1	1						1
DISEASES OF THE DIGESTIVE SYSTEM	3	108	80	24	3	2	2	571	[illegible]
Inflammation of the mouth								7	7
Ulceration of the mouth								1	1
Gangrene of the mouth								1	1
Caries of dentine and cementum								6	6
Necrosis of cementum								6	6
Inflammation of gums and alveoli								1	1
Honey tooth								1	1
Sore throat		5	5					48	53
Inflammation of the tonsils—									
Follicular		4	4					22	26
Suppuration		3	1	1	1				3
Elongated uvula								1	1
Salivation								3	3
Inflammation of the pharynx—Catarrhal		4	4					4	8
Inflammation of the stomach—Catarrhal	1	5	3	2		1		16	22
Ulceration of the stomach—Superficial		1	1						1
Hemorrhage of the stomach		1	1						1
Indigestion	1	6	5	1			1	73	80
Nausea								1	1
Loss of appetite								1	1
Inflammation of the intestines—									
Enteritis		1	1					2	3
Typhlitis		3	3						3
Colitis								10	10
Catarrhal		8	6	2				6	14
Ulceration of the intestines		1	1						1
Hernia		4		4				74	78
Constipation		2	2					130	132
Colic		2	2					6	8
Diarrhea		35	32	2	1			95	130
Enteralgia								1	1
Fistula in ano		3	1	1		1		1	4
Prolapse of the rectum		1		1					1
Piles—									
External		4	2	1			1	33	37
Mixed		5		4	1			2	7
Inflammation of the liver									
Acute		1		1				1	2
Acute abscess	1		1						1
Hyperæmia of the liver								1	1
Hypertrophy of the liver								6	6
Jaundice		5	2	3				2	7
Inflammation of hepatic ducts and gall bladder		2	1	1				8	10
Calculi								1	1
Inflammation of the peritoneum		2	2						2
DISEASES OF THE LYMPHATIC SYSTEM	3	26	19	7	1		2	31	60
Hypertrophy of spleen		1			1				1
Inflammation of lymph glands	2	18	14	6				39	59
Suppuration	1	7	5	1			2	2	10

FIG. [illegible] VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.—Continued.

MISSISSIPPI—Continued.

	Number of cases								
			Discharged						
	Remaining under treatment from previous year	Admitted during the year	Recovered	Improved	Not improved	Died	Remaining under treatment at close of year	Number furnished officers	Number treated in hospital and dispensaries
Diseases of the urinary system	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]
[illegible]		[illegible]		[illegible]		[illegible]			
[illegible]		[illegible]							
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
Diseases of the generative system	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]			[illegible]						[illegible]
[illegible]									[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MISSISSIPPI—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Injuries	6	160	125	41	1	5	3	262	65
GENERAL INJURIES		3	3					9	2
Effects of heat—									
Burns and scalds		2	2					9	11
Heat stroke		1	1						1
LOCAL INJURIES	6	160	122	41	1	5	3	253	65
Strain of muscles		1	1					2	3
Wound of skin		1		1				1	2
Burn or scald of skin		3	1	1		1			3
Burn or scald of mucous membrane		1				1			1
Contusion of scalp		2	2						2
Wound of scalp		8	6	2					8
With injury to the aponeurosis								22	2
Contusion of skull		1			1				1
Fracture of the vault of skull		1				1			1
Contusion of face		2	2					2	4
Wound of face and mouth		1	1					4	5
Dislocation of lower jaw								1	1
Foreign bodies in the conjunctiva or cornea								5	5
Wound of pinna		1		1				1	1
Wound of neck								2	2
Contusion of chest		6	6					10	16
Dislocation of costal cartilages		3	2	1				1	4
Fracture of ribs		2		1			1		2
Contusion of back		5	5					3	8
Gunshot wound of chest		3	3						3
Sprain of back		2	2					9	11
Wound of back		1				1		3	4
Dislocation of spine		1				1			1
Concussion of cord								2	2
Contusion of abdomen	1	1	1				1	1	3
Wound of parietes of abdomen		2	1	1				1	3
Contusion of the pelvis								1	1
Contusion of the perineum, scrotum, or penis								2	2
Wound of the male urethra, perineum, scrotum, testis, or penis	1	3	3	1					4
Fracture or dislocation of pelvic bones		1		1					1
Contusion of upper extremities		11	10	1				31	42
Sprain of shoulder								1	1
Sprain of wrist		4	2	2				8	12
Sprain of hand								1	1
Wound of upper extremities	1	16	11	6				68	85
Fracture of clavicle		1		1					1
Fracture of humerus		3	2	1					3
Fracture of bones of forearm—									
Radius		2	2						2
Ulna		1	1						1
Both bones		2	1	1					2
Fracture of carpus, metacarpus, or phalanges		3	2	1				2	5
Dislocation of humerus	1	4	5						5
Contusion of lower extremities		23	17	6				26	49
Sprain of hip								1	1
Sprain of ankle		9	7	2				6	15
Sprain of foot								1	1
Wound of lower extremities	1	24	16	8			1	32	57
Fracture of femur		3	3					2	5
Fracture of patella		1	1						1
Fracture of tibia		3	2	1					3

VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

MISSISSIPPI—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Discharged: Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
[illegible]									
[illegible]		1	1					1	2
[illegible]	1	2	1						3
[illegible]		1		1					1

GREAT LAKES.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Discharged: Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
[illegible]	127	2,247	1,482	687	49	69	187	10,118	12,487
General diseases	44	857	515	281	21	26	48	4,502	5,403
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
Rheumatic fever	5	23	15	11			2	17	6
Rheumatism	10	118	72	52	2		2	657	75
Gout		1		1				1	2
Osteoarthritis		1		1				2	2
Cyst:									
Mucous		2	2					4	5
Sebaceous		1	1					1	2
New growth, nonmalignant:									
Polypus		3	1	2				2	5
Lipoma		3	3					2	5
Fibroma								1	1
Myxoma								1	1
Papilloma		5	3	2				31	36
Adenoma								1	1
Pterygium		5	5					7	12
New growth, malignant:									
Sarcoma		3	2		1			2	5
Carcinoma		5		1	2	2		1	6
Squamous carcinoma		2			1	1			2
Epithelioma		3	1		1	1		2	5
Myxœdema		1		1					1
Anæmia		2	1	1				12	14
Purpura								1	1
Hemophilia		1		1					1
Diabetes mellitus		3		1	1		1	6	9
Debility		9	6	2	1			211	220
Local Diseases	**51**	**953**	**629**	**264**	**25**	**29**	**57**	**4,708**	**5,712**
DISEASES OF THE NERVOUS SYSTEM	11	58	24	25	2	3	15	210	270
Of the nerves—									
Inflammation—Neuritis	2	9	3	8				9	20
Of the spinal cord and membranes—									
Membranes—									
Inflammation—Of dura mater		1					1		1
Of the spinal cord and membranes—									
Cord—									
Inflammation—Local								2	2
Degeneration—Of posterior columns	5	1				1	5	13	19
Of the brain and its membranes—									
Membranes—									
Inflammation—Of dura mater								1	1
Hemorrhage	1		1						1
Of the brain and its membranes—									
Brain—									
Sclerosis		1					1		1
Hemorrhage	1						1		1
Hyperæmia		1				1			1
Functional nervous disorders with other diseases of undetermined nature—									
Apoplexy		3	1	1			1		3
Paralysis—									
Paraplegia		2	2						2
Hemiplegia	1	7		3		1	4		8
Local paralysis								3	3
Incomplete paralysis		2	2						2
Spasm		1	1					2	3
Torticollis		1	1						1
Epilepsy	1	4		4	1			7	12
Vertigo								6	6
Headache		3	3					25	28
Anæsthesia								2	2
Neuralgia		18	9	8			1	82	100

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

Diseases.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Discharged: Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Diseases of the nervous system—Continued.									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
Tetanus								1	1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]
[illegible]								1	1
Diseases of the [illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]								4	[illegible]
[illegible]								1	1
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]	[illegible]			[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]						[illegible]	[illegible]
[illegible]									
[illegible]								1	1
[illegible]	[illegible]					[illegible]			1
[illegible]								[illegible]	1
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]									1
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	1
[illegible]								[illegible]	1
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
Diseases of the [illegible]	[illegible]	[illegible]						[illegible]	[illegible]
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]									1
[illegible]									
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]					[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									1
Diseases of the [illegible]	[illegible]							[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									
[illegible]									1
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible] of the [illegible]								[illegible]	[illegible]
Diseases of the circulatory system		[illegible]	[illegible]		[illegible]			[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			[illegible]				[illegible]
[illegible]	[illegible]	[illegible]							[illegible]
[illegible]									
[illegible]	[illegible]		[illegible]		[illegible]			[illegible]	[illegible]
[illegible]	[illegible]	[illegible]			[illegible]	[illegible]		[illegible]	[illegible]
A[illegible] and mitral	[illegible]		[illegible]		[illegible]				[illegible]
Tr[illegible]						[illegible]			1
[illegible] of heart, Fatty									[illegible]
Hypertrophy of heart			[illegible]					[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
DISEASES OF THE CIRCULATORY SYSTEM—Continued.									
Dilatation of heart		1				1		5	6
Angina pectoris		1		1				2	3
Disordered action of the heart—Irregularity		1	1					17	18
Arteries—Degeneration of arteries								3	3
Aneurism of arteries		2		2					2
Nævus								2	2
Raynaud's disease		1		1					1
Phlebitis		1		1				8	9
Varix	1	14	9	4	2			20	35
Disease coronary arteries								1	1
DISEASES OF THE RESPIRATORY SYSTEM	7	146	80	52	5	7	9	1,010	1,163
Hay fever								1	1
Inflammation of mucous membrane of larynx—									
Catarrhal, acute		1	1					11	12
Membranous		1					1		1
Tracheitis								4	4
Bronchitis—									
Catarrhal, acute	1	42	31	12				681	724
Catarrhal, chronic	1	19	5	12	1		2	182	202
Spasmodic asthma	1	13	1	13				45	59
Congestion of lung		1	1					24	25
Hemorrhage of lung		1	1						1
Pneumonia	3	22	12	5	1	6	1	2	27
Broncho-pneumonia		8	5	3					8
Phthisis—									
Acute		1				1		6	7
Chronic		1			1			7	8
Tubercular	1						1	6	7
Emphysema								1	1
Pleurisy—									
Acute		29	22	5			2	26	57
Chronic		4		1	2		1	11	15
Empyema		3	1	1			1		2
Miner's asthma								1	1
DISEASES OF THE DIGESTIVE SYSTEM	8	223	166	39	11	7	8	1,427	1,684
Inflammation of the lips								1	1
Ulceration of the lips		1		1				4	5
Inflammation of the mouth		1	1					8	9
Ulceration of the mouth								4	4
Suppuration of the dental pulp								4	4
Abscess of dental periosteum								4	4
Inflammation of gums and alveoli								2	2
Ulceration of gums and alveoli								4	4
Toothache								1	1
Ulceration of the tongue								3	3
Sore throat								25	25
Ulcer of soft palate								1	1
Inflammation of the tonsils—									
Follicular		20	17	3				94	114
Suppuration		9	7	1	1			3	12
Hypertrophy of tonsils		1	1					1	2
Elongated uvula								1	1
Inflammation of salivary glands		1		1				2	3
Salivary calculi								1	1
Inflammation of the pharynx									
Catarrhal		5	2	2	1			42	47
Follicular		1	1						1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
DISEASES OF THE DIGESTIVE SYSTEM									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE LYMPHATIC SYSTEM									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE THYROID BODY									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE URINARY SYSTEM									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE URINARY SYSTEM—Continued.									
Nephralgia								1	1
Calculus in ureter		1	1					1	2
Hæmaturia								1	1
Albuminuria								3	3
Lithuria								6	6
Oxaluria								1	1
Inflammation of bladder—									
Acute	1	11	5	6		1		78	93
Subacute	1		1					1	2
Chronic		4		4				11	15
Calculus of bladder		1	1					3	4
Ileo-vesicular fistula								1	1
Irritability of bladder								4	4
Retention of urine								4	4
Incontinence of urine								8	8
DISEASES OF THE GENERATIVE SYSTEM	4	157	116	37	3		5	563	720
Urethritis								5	5
Gleet								12	12
Hemorrhage of the urethra								4	4
Stricture of urethra—organic	2	30	20	11			1	79	111
Urethral fistula		1		1					1
Inflammation of the prostate—chronic								2	2
Prostatorrhœa								3	3
Hypertrophy of the prostate		5		5				15	20
Posthitis		1					1	2	3
Phimosis		16	14	2				8	24
Inflammation of the penis—of the glans								9	9
Ulcer of penis		5	3	1			1	26	31
Soft chancre		43	34	8			1	285	328
Abscess of the scrotum								2	2
Pruritus of the scrotum								2	2
Varicocele	1	10	7	2	1		1	26	37
Hydrocele of tunica vaginalis		9	9					16	25
Inflammation of the testicle—									
Acute orchitis	1	26	22	4	1			24	51
Chronic orchitis								2	2
Epididymitis		7	4	2	1			3	10
Spermatorrhea								10	10
Impotence								12	12
Inflammation of the ovary								1	1
Inflammation of the uterus		1		1				2	3
Laceration cervix uteri		1	1						1
Prolapse of the vagina								1	1
Dysmenorrhea		1	1					4	5
Metrorrhagia								4	4
Leucorrhœa								3	3
Induration corpora cavernosa		1	1					1	2
DISEASES OF THE ORGANS OF LOCOMOTION	1	49	33	15			2	270	320
Inflammation of the bones—									
Osteitis								2	2
Periostitis		3	2	1				6	9
Necrosis		4	2	2				1	5
Hypertrophy of the bones		1		1					1
Inflammation of joints—									
Acute synovitis		4	3				1	9	13
Chronic synovitis	1	5	1	5					6
Ankylosis		3	1	2					3

TABLE [illegible]—TABULAR STATEMENT BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 190[illegible]—Continued.

GREAT LAKES—Continued.

Disease	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at the end of the year	Number treated in hospitals and dispensaries	Number treated in hospitals and dispensaries
			Recovered	Improved	Not improved	Death			
Diseases of the circulatory system									
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
Diseases of the respiratory tract		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]						[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					[illegible]
[illegible]									[illegible]
Diseases of the skin		[illegible]	[illegible]			[illegible]		[illegible]	[illegible]
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]			[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
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[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
LOCAL INJURIES—Continued.									
Wound of skin								5	5
Burn or scald of skin		6	4				2	3	9
Frostbite		2	2					1	3
Burn or scald of mucous membrane		2		2					2
Effects on the mucous membrane of irritants or corrosives								1	1
Contusion of scalp		3	2	1					3
Wound of scalp		18	12	6				30	48
With injury to the aponeurosis		3	3					7	10
With injury to the pericranium								1	1
Contusion of skull		1		1				2	3
Fracture of the vault of skull		2	1	1					2
Fracture of the base of skull		3	1			2			3
Concussion of brain	1	2	3					1	4
Contusion of face		2	2					7	9
Wound of face and mouth		4	2	2				19	23
Foreign bodies in the nose, antrum, or other cavities								1	1
Fracture of facial bones		2		1	1			6	8
Contusion of eyelid		1	1					4	5
Hemorrhage, subconjunctival								1	1
Wound of conjunctiva		1		1				1	2
Contusion of eyeball		1		1					1
Foreign bodies in the conjunctiva or cornea								25	25
Foreign bodies in eyeball								4	4
Wound of eyeball								1	1
Contusion of pinna								1	1
Wound of pinna		1	1					1	2
Foreign body in external meatus								2	2
Contusion of neck								1	1
Fracture cartilage of larynx		1		1					1
Wound of neck		1		1				1	2
Contusion of chest		8	5	3				22	30
Dislocation of costal cartilages								2	2
Fracture of ribs	3	14	12	5				24	41
Wound of parietes of chest		1	1						1
Penetrating wound of pleura or lung		1	1						1
Contusion of back	1	18	12	6			1	29	48
Sprain of back		6	4	1			1	38	44
Fracture of spine	1					1			1
Contusion of abdomen		1	1					2	3
Wound of parietes of abdomen		1		1				4	5
Wound of the male urethra, perinæum, scrotum, testis, or penis		2	2					1	3
Wound of rectum		1	1					4	5
Fracture or dislocation of pelvic bones		3	1	2					3
Compression spinal cord		1				1			1
Contusion of testicle		2	1	1				2	4
Contusion of upper extremities	2	24	20	5			1	72	98
Sprain of shoulder		1		1				12	13
Sprain of elbow								3	3
Sprain of wrist		4	1	3				39	43
Sprain of hand								2	2
Sprain of thumb								4	4
Wound of upper extremities	2	30	16	12	1		3	203	235
Fracture of clavicle	1	6	6	1				1	8
Fracture of scapula		2	1				1		2
Fracture of humerus		5	3	1			1	1	6
Fracture of bones of forearm—									
Radius		4	1	1			2	1	5
Ulna		4	2	2					4
Both bones		7	3	4				2	9

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Discharged: Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Local injuries—Continued.									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12
[illegible]								[illegible]	1
[illegible]				[illegible]			1	[illegible]	12
[illegible]									1
[illegible] phalanges of fingers		[illegible]						1	5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	125
[illegible]								1	1
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	21
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	52
[illegible]									1
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	100
[illegible]									[illegible]
[illegible]									1
[illegible]					[illegible]				9
[illegible]		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]			[illegible]	[illegible]	21
[illegible]				[illegible]					3
[illegible]									1
[illegible]	[illegible]	[illegible]	[illegible]				[illegible]		1
[illegible]									1
[illegible]									1
[illegible]								[illegible]	2

PACIFIC.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Discharged: Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
Total cases	149	1,946	930	[illegible]	71	76	203	5,223	7,319
General diseases	74	695	281	303	25	44	113	1,901	2,670
[illegible]									[illegible]
[illegible]								[illegible]	16
[illegible]		[illegible]	[illegible]						11
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]									1
[illegible]		[illegible]							6
[illegible]									1
[illegible]	[illegible]	[illegible]	[illegible]				[illegible]		[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]							[illegible]
[illegible]									
[illegible]	[illegible]	[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]	[illegible]						1
[illegible]		[illegible]				[illegible]		[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]	1								1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]
Diseases dependent on animal parasites:									
[illegible]									1
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
Diseases dependent on vegetable parasites:									
[illegible]								[illegible]	9

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Effects of animal poisons—fish								14	14
Effects of vegetable poisons—copaiba								2	2
Effects of the presence of foreign bodies		2	1		1			7	9
Effects of mechanical injuries		1		1					1
Effects of chemical agents		2	1	1				1	3
Scurvy		3		3		1		4	7
Alcoholism	1	18	10	5	2	2		44	62
Rheumatic fever	3	25	17	10		1		7	35
Rheumatism	1	94	46	34	1	1	13	347	42
Osteoarthritis	1	2		2			1	3	6
Cyst—mucous								2	2
New growth, nonmalignant:									
Lipoma		3		1	2			6	9
Condyloma								1	1
Papilloma		1		1				6	7
Pterygium								1	1
New growth, malignant—carcinoma		1				1		1	2
Anæmia								3	3
Chlorosis								2	2
Leucocythæmia		1				1		1	1
Diabetes mellitus									1
Congenital malformations								1	1
Debility		6	2	3	1			31	37
Local Diseases	59	823	388	369	34	28	63	2,473	3,215
DISEASES OF THE NERVOUS SYSTEM	12	42	8	29	6	5	6	121	175
Of the nerves—									
Inflammation—neuritis	1	10	2	9				15	27
Of the spinal cord and membranes—cord—									
Degeneration—									
Of anterior cornua	1				1				1
Of lateral columns	1			1					1
Of posterior columns	2	2				1	3	3	7
Of the brain and its membranes—membranes—									
Hemorrhage		1		1					1
Of the brain and its membranes—brain—									
Sclerosis	1	1		2					2
Hemorrhage		7		2	1	2	2		7
Functional nervous disorders with other diseases of undetermined nature—									
Paralysis—									
Hemiplegia	1			1				1	2
Local paralysis		1		1				4	5
Incomplete paralysis	1						1		1
Spasm								1	1
Torticollis								2	2
Epilepsy		2		2				2	4
Vertigo		1	1						1
Headache								8	8
Anæsthesia								1	1
Neuralgia	2	11	3	5	4	1		61	74
Hysteria								3	3
Nervous weakness		3	1	2				15	18
Aphasia	1		1						1
Mental diseases—									
Mania, acute		1				1		2	3
Melancholia	1	2		3				3	6

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

Disease	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary
			Recovered	Improved	Not improved	Died			
Diseases of the Eye	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]		[illegible]	[illegible]			[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]	[illegible]	[illegible]		[illegible]			[illegible]		[illegible]
[illegible]		[illegible]			[illegible]			[illegible]	[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]					[illegible]				[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
Diseases of the Ear		[illegible]		[illegible]			[illegible]	[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
Diseases of the Nose		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]	[illegible]		[illegible]						[illegible]
[illegible]									[illegible]
[illegible]	[illegible]								[illegible]
[illegible]									[illegible]
Diseases of the Circulatory Organs	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]							[illegible]
[illegible]									
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]				[illegible]			[illegible]
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]							[illegible]
[illegible]									
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]							
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]	[illegible]	[illegible]							[illegible]
[illegible]									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE RESPIRATORY SYSTEM	8	153	75	67	1	10	8	458	619
Inflammation of mucous membrane of larynx—									
Catarrhal, acute		4	2	2				18	22
Catarrhal, chronic		1		1					1
Tracheitis, catarrhal		1		1					1
Spasm larynx								1	1
Bronchitis—									
Catarrhal, acute	3	47	26	23	1			310	360
Catarrhal, chronic	1	13	2	11			1	44	58
Spasmodic asthma	1	3	1	3				17	21
Hemorrhage of lung								1	1
Hemoptysis								2	2
Pneumonia		33	20	3		6	4	7	40
Broncho-pneumonia		2		1		1		1	3
Phthisis—									
Acute		40	22	17			1		40
Chronic		2		2					2
Tubercular		1		1					1
Pneumothorax		1				1			1
Colliers phthisis		1		1				1	2
Pleurisy—									
Acute	2	1	1			1	1	19	22
Chronic		3	1	1		1		4	7
Empyema	1						1		1
Adhesions of pleura								33	33
DISEASES OF THE DIGESTIVE SYSTEM	9	150	79	56	14	3	7	647	866
Inflammation of the mouth								4	4
Ulceration of the mouth		2		2				3	5
Caries of dentine and cementum								19	19
Abscess of dental periosteum		1					1	2	3
Inflammation of gums and alveoli		1	1					2	3
Toothache								5	5
Sore throat		2	1			1		70	72
Inflammation of the tonsils—									
Follicular	1	23	18	4	1		1	62	86
Suppuration		8	5	3					8
Hypertrophy of tonsils		2	1	1				4	6
Elongated uvula		1		1				1	2
Inflammation of salivary glands		1	1						1
Salivation								1	1
Inflammation of the pharynx—catarrhal								15	15
Ulceration of pharynx		1	1						1
Inflammation of the stomach—catarrhal	2	21	8	14	1			36	59
Ulceration of the stomach—superficial		1	1						1
Indigestion	1	5	3	3				126	132
Vomiting								1	1
Gastralgia								3	3
Heartburn								3	3
Inflammation of the intestines—									
Enteritis		3	1	2				4	7
Typhlitis	1	5	4		1	1		2	8
Colitis								1	1
Catarrhal		3		3				26	26
Ulceration of the intestines		1					1		1
Fecal accumulation								1	1
Hernia		25	13	3	7		2	75	100
Stricture of the rectum		1				1			1
Obstruction of the intestines		1	1						1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

Disease.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
DISEASES OF THE DIGESTIVE SYSTEM:									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE LYMPHATIC SYSTEM:	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	111
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE URINARY SYSTEM:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DISEASES OF THE GENERATIVE SYSTEM:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sloughing of scrotum									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE GENERATIVE SYSTEM—Continued.									
Pruritus of the scrotum								1	1
Hydrocele of the spermatic cord	1		1						1
Varicocele		6	3	2			1	20	26
Hydrocele of tunica vaginalis		6	4	1			1	8	14
Inflammation of the testicle—									
Acute orchitis		9	7	2				26	35
Chronic orchitis		1					1		1
Epididymitis		2	2					4	6
Abscess of testicle		1		1					1
Spermatorrhea								7	7
Impotence								1	1
DISEASES OF THE ORGANS OF LOCOMOTION	7	42	15	28	2		4	119	166
Inflammation of the bones—									
Osteitis		1	1					2	3
Periostitis		1		1					1
Caries		1	1					2	3
Necrosis	2	4	2	4				4	10
Acromegaly		1					1		1
Inflammation of joints—									
Acute synovitis	2	5	2	4			1	11	18
Chronic synovitis		3		2	1				3
Anchylosis	1	1		1			1	10	13
Relaxation of ligaments								1	1
Posterior curvature of spine, angular	1						1		1
Myalgia		13	5	8				54	67
Lumbago		3	2	1				25	28
Adhesion of tendons		1		1					1
Contraction of tendons		1		1				1	2
Inflammation of sheaths of tendons								1	1
Thecal abscess		1		1					1
Inflammation of bursæ—									
Acute		4	2	2				1	5
Chronic	1			1					1
Abscess of bursæ		1		1				1	2
Bunion		1			1			2	3
Flat foot								4	4
DISEASES OF THE CONNECTIVE TISSUE	6	68	39	25	2	1	7	79	153
Inflammation	1	16	10	5			2	21	40
Abscess	5	50	28	20	2	1	4	48	103
Gangrene		1	1						1
Œdema		1					1		1
DISEASES OF THE SKIN	6	90	53	33	2		8	351	447
Erythema		2	2					5	7
Pityriasis rosea								1	1
Urticaria		1					1	7	8
Prickly heat								2	2
Eczema	1	10	8	2			1	68	79
Impetigo								2	2
Prurigo								3	3
Psoriasis		2	1	1				6	8
Herpes		1	1					7	8
Zona		3	2				1	4	7
Pemphigus								3	3
Acne		1	1					18	19
Sycosis		1		1				4	5
Seborrhea								1	1
Melasma								1	1

TABLE XII. TABULAR STATEMENT, BY DISTRICTS OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901.—Continued.

PACIFIC—Continued.

	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary
			Recovered	Improved	Not improved	Dead			
[illegible]									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
Injuries	16	128	261	143	9	4	27	819	1,293
[illegible]									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
LOCAL INJURIES—Continued.									
Wound of skin								5	5
Burn or scald of skin		6	4				2	3	9
Frostbite		2	2					1	2
Burn or scald of mucous membrane		2		2					2
Effects on the mucous membrane of irritants or corrosives								1	1
Contusion of scalp		3	2	1					3
Wound of scalp		18	12	6				30	6
With injury to the aponeurosis		3	3					7	3
With injury to the pericranium								1	1
Contusion of skull		1		1				2	3
Fracture of the vault of skull		2	1	1					2
Fracture of the base of skull		3	1			2			3
Concussion of brain	1	2	3					1	4
Contusion of face		2	2					7	9
Wound of face and mouth		4	2	2				19	23
Foreign bodies in the nose, antrum, or other cavities								1	1
Fracture of facial bones		2		1	1			6	8
Contusion of eyelid		1	1					4	5
Hemorrhage, subconjunctival								1	1
Wound of conjunctiva		1		1				1	2
Contusion of eyeball		1		1					1
Foreign bodies in the conjunctiva or cornea								25	25
Foreign bodies in eyeball								4	4
Wound of eyeball								1	1
Contusion of pinna								1	1
Wound of pinna		1	1					1	2
Foreign body in external meatus								2	2
Contusion of neck								1	1
Fracture cartilage of larynx		1		1					1
Wound of neck		1		1				1	1
Contusion of chest		8	5	3				22	30
Dislocation of costal cartilages								2	1
Fracture of ribs	3	14	12	5				24	4
Wound of parietes of chest		1	1						
Penetrating wound of pleura or lung		1	1						
Contusion of back	1	18	12	6			1	29	4
Sprain of back		6	4	1			1	38	4
Fracture of spine	1					1			
Contusion of abdomen		1	1					2	
Wound of parietes of abdomen		1		1				4	
Wound of the male urethra, perinæum, scrotum, testis, or penis		2	2					1	
Wound of rectum		1	1					4	
Fracture or dislocation of pelvic bones		3	1	2					
Compression spinal cord		1				1			
Contusion of testicle		2	1	1				2	
Contusion of upper extremities	2	24	20	5			1	62	
Sprain of shoulder		1		1				12	
Sprain of elbow								3	
Sprain of wrist		4	1	3				39	
Sprain of hand								2	
Sprain of thumb								4	
Wound of upper extremities	2	30	16	12	1		3	203	1
Fracture of clavicle	1	6	6					1	
Fracture of scapula		2	1				1		
Fracture of humerus		5	3				1	1	
Fracture of bones of forearm—									
Radius		4					2	1	
Ulna		4	2	2					
Both bones		7	3	4				2	

VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

GREAT LAKES—Continued.

[illegible]	Number of cases								
			Discharged						
	Remaining under treatment from previous year	Admitted during the year	Recovered	Improved	Not improved	Died	Remaining under treatment at close of year	Number furnished officers' [illegible]	Number treated in hospital and dispensary
[illegible]									
[illegible]	1		1		1			10	12
[illegible]								1	1
[illegible]		1		1			1	5	12
[illegible]			1						1
[illegible]		4		1				1	5
[illegible]	5	8	11	11			2	11	15
[illegible]								1	1
[illegible]		1	4	4				14	21
[illegible]	1	1	24	5			1	47	77
[illegible]			1						1
[illegible]		7	1	1			1	1	10
[illegible]			1	1					2
[illegible]									1
[illegible]			1		1			1	2
[illegible]			2					1	3
[illegible]	4	4	1	4			4	1	18
[illegible]		1	1	1					3
[illegible]		1	1						1
[illegible]	1	1	4	1			1	1	8
[illegible]		1	1						1
[illegible]								1	1
[illegible]								2	2
[illegible]									

PACIFIC.

[illegible]									
[illegible]	149	1,916	930	812	31	76	203	5,223	7,318
[illegible]	74	692	281	383	28	44	112	1,901	2,670
[illegible]								1	3
[illegible]								4	14
[illegible]		12	12					1	13
[illegible]		1	1						2
[illegible]		9	9	5				144	157
[illegible]		5	15					1	6
[illegible]		1				1			1
[illegible]		1	1	1					4
[illegible]									1
[illegible]	2	2	11	2		1	1		17
[illegible]		1	1					4	6
[illegible]		1		1					2
[illegible]		1	1						2
[illegible]									
[illegible]	1	11	4	1				2	18
[illegible]		1	1						2
[illegible]		11	1			1			13
[illegible]		1							10
[illegible]	1								1
[illegible]	34	[illegible]	4	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]									
[illegible]		4		4				[illegible]	[illegible]
[illegible]	1	[illegible]	1	[illegible]	1	1	1	[illegible]	[illegible]
[illegible]	1	[illegible]	[illegible]	[illegible]	1		1	[illegible]	[illegible]
[illegible]									
[illegible]									1
[illegible]									2
[illegible]									7
[illegible]									
[illegible]		1	1					1	9

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
Effects of animal poisons—fish								14	14
Effects of vegetable poisons—copaiba								2	2
Effects of the presence of foreign bodies		2	1		1			7	9
Effects of mechanical injuries		1		1					1
Effects of chemical agents		2	1	1				1	3
Scurvy		3		2		1		4	7
Alcoholism	1	18	10	5	2	2		44	62
Rheumatic fever	3	25	17	10		1		7	35
Rheumatism	1	94	46	34	1	1	13	347	42
Osteoarthritis	1	2		2			1	3	6
Cyst—mucous								2	2
New growth, nonmalignant:									
Lipoma		3		1	2			6	9
Condyloma								1	1
Papilloma		1		1				6	7
Pterygium								1	1
New growth, malignant—carcinoma		1				1		1	2
Anæmia								3	3
Chlorosis								2	2
Leucocythæmia		1				1		1	1
Diabetes mellitus									1
Congenital malformations								1	1
Debility		6	2	3	1			31	37
Local Diseases	59	823	388	369	34	28	63	2,473	2,455
DISEASES OF THE NERVOUS SYSTEM	12	42	8	29	6	5	6	121	175
Of the nerves—									
Inflammation—neuritis	1	10	2	9				15	25
Of the spinal cord and membranes—cord—									
Degeneration—									
Of anterior cornua	1				1				1
Of lateral columns	1			1					1
Of posterior columns	2	2				1	3	3	7
Of the brain and its membranes—membranes—									
Hemorrhage		1		1					1
Of the brain and its membranes—brain—									
Sclerosis	1	1		2					2
Hemorrhage		7		2	1	2	2		7
Functional nervous disorders with other diseases of undetermined nature—									
Paralysis—									
Hemiplegia	1			1				1	2
Local paralysis		1		1				4	5
Incomplete paralysis	1						1		1
Spasm								1	1
Torticollis								2	2
Epilepsy		2		2				2	4
Vertigo		1	1						1
Headache								8	8
Anæsthesia								1	1
Neuralgia	2	11	3	5	4	1		61	74
Hysteria								3	3
Nervous weakness		3	1	2				15	18
Aphasia	1		1						1
Mental diseases—									
Mania, acute		1				1		2	3
Melancholia	1	2		3				3	6

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

Diseases.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Dead.			
Diseases of the Eye.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]	[illegible]	[illegible]		[illegible]			[illegible]		[illegible]
[illegible]		[illegible]			[illegible]				[illegible]
[illegible]								[illegible]	[illegible]
[illegible]				[illegible]					[illegible]
[illegible]		[illegible]			[illegible]				[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
Diseases of the Ear.		[illegible]		[illegible]			[illegible]	[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
Diseases of the Nose.		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]	[illegible]		[illegible]						[illegible]
[illegible]								[illegible]	[illegible]
[illegible]									[illegible]
[illegible]			[illegible]						[illegible]
Diseases of the Circulatory System.									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]			[illegible]						[illegible]
[illegible]									
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]			[illegible]	[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]							[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]			[illegible]						[illegible]
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]
[illegible]									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE RESPIRATORY SYSTEM	8	153	75	67	1	10	8	458	619
Inflammation of mucous membrane of larynx—									
Catarrhal, acute		4	2	2				18	22
Catarrhal, chronic		1		1					1
Tracheitis, catarrhal		1		1					1
Spasm larynx								1	1
Bronchitis—									
Catarrhal, acute	3	47	26	23	1			310	360
Catarrhal, chronic	1	13	2	11			1	44	58
Spasmodic asthma	1	3	1	3				17	21
Hemorrhage of lung								1	1
Hemoptysis								2	2
Pneumonia		33	20	3		6	4	7	40
Broncho-pneumonia		2		1		1		1	3
Phthisis—									
Acute		40	22	17			1		40
Chronic		2		2					2
Tubercular		1		1					1
Pneumothorax		1				1			1
Colliers phthisis		1		1				1	2
Pleurisy—									
Acute	2	1	1			1	1	19	22
Chronic		3	1	1		1		4	7
Empyema	1						1		1
Adhesions of pleura								33	33
DISEASES OF THE DIGESTIVE SYSTEM	9	150	79	56	14	3	7	647	866
Inflammation of the mouth								4	4
Ulceration of the mouth		2		2				3	5
Caries of dentine and cementum								19	19
Abscess of dental periosteum		1					1	2	3
Inflammation of gums and alveoli		1	1					2	3
Toothache								5	5
Sore throat		2	1			1		70	72
Inflammation of the tonsils—									
Follicular	1	23	18	4	1		1	62	86
Suppuration		8	5	3					8
Hypertrophy of tonsils		2	1	1				4	6
Elongated uvula		1		1				1	2
Inflammation of salivary glands		1	1						1
Salivation								1	1
Inflammation of the pharynx—catarrhal								15	15
Ulceration of pharynx		1	1						1
Inflammation of the stomach—catarrhal	2	21	8	14	1			36	39
Ulceration of the stomach—superficial		1	1						1
Indigestion	1	5	3	3				126	132
Vomiting								1	1
Gastralgia								3	3
Heartburn								3	3
Inflammation of the intestines—									
Enteritis		3	1	2				4	7
Typhlitis	1	5	4		1	1		2	8
Colitis								1	1
Catarrhal		3		3				22	25
Ulceration of the intestines		1					1		1
Fecal accumulation								1	1
Hernia		25	13	3	7		2	75	100
Stricture of the rectum		1				1			1
Obstruction of the intestines		1	1						1

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

Diseases	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished other relief	Number treated in hospital and dispensary
			Recovered	Improved	Not improved	Dead			
DISEASES OF THE DIGESTIVE SYSTEM—Continued.									
Intestinal [illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible] of the anus		[illegible]						[illegible]	[illegible]
Inflammation of the rectum		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible] of the anus		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]				[illegible]	[illegible]			[illegible]	[illegible]
Piles									
Internal								[illegible]	[illegible]
External		[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]
Mixed		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
Inflammation of [illegible]				[illegible]					[illegible]
Hypertrophy of the liver			[illegible]	[illegible]					[illegible]
Jaundice				[illegible]	[illegible]			[illegible]	[illegible]
Inflammation of [illegible]									
[illegible]		[illegible]							[illegible]
[illegible]		[illegible]							[illegible]
[illegible] of [illegible]	[illegible]								[illegible]
[illegible]								[illegible]	[illegible]
DISEASES OF THE URINARY SYSTEM	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
Inflammation of [illegible]		[illegible]		[illegible]			[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]							[illegible]
DISEASES OF THE [illegible] SYSTEM		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]	[illegible]	[illegible]				[illegible]			[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
DISEASES OF THE [illegible] SYSTEM		[illegible]		[illegible]					[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]			[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
[illegible] of the [illegible]		[illegible]							[illegible]
[illegible] of the [illegible]									[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE GENERATIVE SYSTEM—Continued.									
Pruritus of the scrotum								1	1
Hydrocele of the spermatic cord	1		1						1
Varicocele		6	3	2			1	20	26
Hydrocele of tunica vaginalis		6	4	1			1	8	14
Inflammation of the testicle—									
Acute orchitis		9	7	2				26	35
Chronic orchitis		1					1		1
Epididymitis		2	2					4	6
Abscess of testicle		1		1					1
Spermatorrhea								7	7
Impotence								1	1
DISEASES OF THE ORGANS OF LOCOMOTION	7	42	15	28	2		4	119	168
Inflammation of the bones—									
Osteitis		1	1					2	3
Periostitis		1		1					1
Caries		1	1					2	3
Necrosis	2	4	2	4				4	10
Acromegaly		1					1		1
Inflammation of joints—									
Acute synovitis	2	5	2	4			1	11	18
Chronic synovitis		3		2	1				3
Anchylosis	1	1		1			1	10	12
Relaxation of ligaments								1	1
Posterior curvature of spine, angular	1						1		1
Myalgia		13	5	8				54	67
Lumbago		3	2	1				25	28
Adhesion of tendons		1		1					1
Contraction of tendons		1		1				1	2
Inflammation of sheaths of tendons								1	1
Thecal abscess		1		1					1
Inflammation of bursæ—									
Acute		4	2	2				1	5
Chronic	1			1					1
Abscess of bursæ		1		1				1	2
Bunion		1			1			2	3
Flat foot								4	4
DISEASES OF THE CONNECTIVE TISSUE	6	68	39	25	2	1	7	79	153
Inflammation	1	16	10	5			2	31	48
Abscess	5	50	28	20	2	1	4	48	103
Gangrene		1	1						1
Œdema		1					1		1
DISEASES OF THE SKIN	6	90	53	33	2		8	351	447
Erythema		2	2					5	7
Pityriasis rosea								1	1
Urticaria		1					1	7	8
Prickly heat								2	2
Eczema	1	10	8	2			1	68	79
Impetigo								2	2
Prurigo								3	3
Psoriasis		2	1	1				6	8
Herpes		1	1					7	8
Zona		3	2				1	4	7
Pemphigus								3	3
Acne		1	1					18	19
Sycosis		1		1				4	5
Seborrhea								1	1
Melasma								1	1

TABLE VII. TABULAR STATEMENT, BY DISTRICTS OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

Diseases	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary
			Recovered	Improved	Not improved	Died			
Diseases of the skin—Continued.									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
Injuries	14	428	261	143	9	1	27	849	1,293
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]									
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									
[illegible]		[illegible]	[illegible]					[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]				[illegible]					[illegible]
[illegible]				[illegible]					[illegible]
[illegible]				[illegible]					[illegible]
[illegible]				[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]				[illegible]					[illegible]
[illegible]				[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]				[illegible]					[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]									[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]
[illegible]		[illegible]		[illegible]					[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
LOCAL INJURIES—Continued.									
Wound of parietes of abdomen		1	1					2	3
Contusion of the pelvis		2	1	1					2
Contusion of the perineum, scrotum, or penis		2	2					1	3
Wound of the male urethra, perineum, scrotum, testis, or penis		1	1					7	8
Wound of rectum		1		1					1
Gunshot wound	1		1						1
Contusion of testicle								1	1
Contusion of upper extremities		22	14	8				60	82
Sprain of shoulder	1	5	4	2				21	27
Sprain of elbow		3	2	1				3	6
Sprain of wrist		4	2	2				25	29
Sprain of hand								3	3
Sprain of thumb								5	5
Sprain of fingers								6	6
Wound of upper extremities		57	31	18	1		7	197	254
Fracture of clavicle		6	4		1		1	3	9
Fracture of humerus		3	1	1			1		3
Fracture of bones of forearm—									
Radius		2	2	1				4	6
Ulna		2		2				2	4
Both bones		3	3					1	4
Fracture of carpus, metacarpus, or phalanges		1	1					15	16
Dislocation of clavicle								2	2
Dislocation of humerus		3	2	1				4	7
Dislocation of phalanges of thumb								1	1
Dislocation of phalanges of fingers		1		1				2	3
Dislocation of carpus								2	2
Contusion of lower extremities	1	44	24	20	1			51	96
Sprain of hip								5	5
Sprain of knee		15	7	7			1	23	38
Sprain of ankle		29	18	9	1		1	33	63
Sprain of foot		1	1					4	5
Wound of lower extremities	2	36	21	14			3	86	124
Wound of joint, lower extremities		1					1		1
Rupture of bursæ		2		2					2
Fracture of femur	1	6	4				3		7
Fracture of cervix femoris	1	2		1	1		1		3
Fracture of patella		3	2	1				1	4
Fracture of tibia	4	14	14	1		1	2	5	23
Fracture of fibula	2	6	7				1	1	9
Fracture of tibia and fibula		8	5	2			1	4	12
Fracture of bones of foot		3	2				1	1	4
Of the metatarsus		1		1				2	3
Of the phalanges of the toes		5	2	3				1	6
Dislocation of tibia		2	1	1					2
Malingering		1			1				1
QUARANTINE.									
TOTAL CASES	3	44	38	3	2	3	1	23	70
General Diseases	2	32	31		2		1	11	45
Smallpox	2	18	19				1		20
Influenza								1	1
Enteric fever								2	2

TABLE VII. TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District	Number of cases								
	Remaining under treatment from previous year	Admitted during the year	Discharged				Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary.
			Recovered	Improved	Not improved	Died			
[illegible]		1	1						3
[illegible]		[illegible]	[illegible]					[illegible]	11
[illegible]		[illegible]	1					[illegible]	3
[illegible]		1			1				1
[illegible]		1			1				1
[illegible]								[illegible]	2
[illegible]								1	1
Local Diseases	1	4	2	1		2		5	18
DISEASES OF THE CIRCULATORY SYSTEM									
[illegible]		[illegible]				[illegible]			[illegible]
DISEASES OF THE RESPIRATORY SYSTEM									
[illegible]								1	3
[illegible]								[illegible]	[illegible]
[illegible]								1	1
DISEASES OF THE DIGESTIVE SYSTEM								1	3
[illegible]									
[illegible]								1	1
[illegible]									
[illegible]								1	1
[illegible]								1	1
DISEASES OF THE LYMPHATIC SYSTEM	1		1						1
[illegible]	1		1						1
DISEASES OF THE GENERATIVE SYSTEM		1	1					1	2
[illegible]								1	1
[illegible]									
[illegible]		1	1						1
DISEASES OF THE CONNECTIVE TISSUE								1	1
[illegible]								1	1
DISEASES OF THE SKIN		1		1					1
[illegible]		1		1					1
Injuries		4	3	2		1		4	12
[illegible]									
[illegible]		4	4						4
[illegible]		1				1			1
[illegible]		3	3						3
[illegible]		2		2				4	4
[illegible]		1		1					1
[illegible]								1	1
[illegible]		1							1
[illegible]									1
[illegible]									1
[illegible]									1

TABLE VIII.—TABULATED STATEMENT, BY DISTRICTS, OF CAUSES OF MORTALITY AMONG PATIENTS OF THE SERVICE DURING THE YEAR ENDED JUNE 30, 1901.

Causes of death.	Total.	Districts. North Atlantic.	Middle Atlantic.	South Atlantic.	The Gulf.	The Ohio.	The Mississippi.	The Great Lakes.	The Pacific.	Quarantine stations.
Total deaths from all causes	**421**	**33**	**63**	**61**	**43**	**25**	**48**	**69**	**76**	**3**
FROM DISEASES	397	32	63	57	41	22	43	65	72	2
FROM INJURIES	24	1		4	2	3	5	4	4	1
General Diseases	**192**	**14**	**29**	**25**	**14**	**8**	**22**	**36**	**44**	
Smallpox	1			1						
Measles	1			1						
Influenza	2						1	1		
Mumps	1			1						
Diphtheria	1								1	
Cerebro-spinal fever	1								1	
Enteric fever	27	2	2	4		1	2	15	1	
Choleraic diarrhea	1	1								
Dysentery	2				2					
Beriberi	1	1								
Malarial fever:										
Intermittent	2		1		1					
Remittent	6			1	2		2		1	
Erysipelas	2				1				1	
Septicæmia	2			1	1					
Tetanus	1							1		
Tubercle	110	8	22	14	4	7	13	13	29	
Syphilis:										
Primary	2	1	1							
Secondary	7			1	1		1	1	3	
Scurvy	1								1	
Alcoholism	3							1	2	
Rheumatic fever	3		1		1				1	
Rheumatism	2						1		1	
New growth, malignant:										
Sarcoma	2	1	1							
Carcinoma	4				1			2	1	
Carcinoma, glandular	1						1			
Squamous carcinoma	1							1		
Epithelioma	1							1		
Leucocythemia	1								1	
Diabetes mellitus	2		1	1						
Debility	1						1			
Local Diseases	**205**	**18**	**34**	**32**	**27**	**14**	**21**	**29**	**28**	**1**
DISEASES OF THE NERVOUS SYSTEM	37	5	7	9	6		2	3	5	
Neuritis	1			1						
Degeneration spinal column	3		1					1	1	
Inflammation of brain	7	2	2	1	1		1			
Inflammation of dura mater	1	1								
Hemorrhage of brain	6		2	1	1				2	
Hyperemia	2			1				1		
Apoplexy	3	2					1			
Paralysis -										
Paraplegia	3		1	1	1					
Hemiplegia	4			2	1			1		
Local paralysis	1				1					
Incomplete paralysis	1								1	
Epilepsy	2		1		1					
Mania, acute	1								1	
Dementia	1			1						
General paralysis of the insane	1			1						
DISEASES OF THE CIRCULATORY SYSTEM	51	6	5	3		7	6	8	7	1
Pericarditis	3					1		1	1	
Endocarditis	3							2		
Valvular disease -										
Aortic	15	2	2	2	2	2		2	3	
Mitral	19	3	2	1		3	5	2	3	
Fatty degeneration of heart	3								1	1
Dilatation of heart	1							1		
Endarteritis	1				1					
Aneurism of arteries	5	1			2	1	1			
Embolism	1		1							
DISEASES OF THE RESPIRATORY SYSTEM	57	4	9	13	1	6	7	7	10	
Bronchitis - catarrhal, chronic	4		1	3						
Spasmodic asthma	1			1						
Congestion of lung	1					1				

[illegible]III.—TABULATED STATEMENT, BY DISTRICTS, OF CAUSES OF MORTALITY [illegible] PATIENTS OF THE SERVICE DURING THE YEAR ENDED JUNE 30, 1901—[illegible]

Causes of death	Total	North Atlantic.	Middle Atlantic.	South Atlantic.	The Gulf.	The Ohio.	The Mississippi.	The Great Lakes.	The Pacific.	Quarantine stations.
		Districts.								
[illegible] of the Respiratory System—Continued.										
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]		1						1	
[illegible]	1							1		
[illegible] of the Digestive System.	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	
[illegible] (chronic catarrhal)	[illegible]									
[illegible]	1		1							
[illegible]	1		1					1		
[illegible]	1								1	
[illegible] of the Lymphatic System.	[illegible]									
[illegible] of the Urinary System.	[illegible]				[illegible]		[illegible]	[illegible]	[illegible]	
[illegible] of the Generative System.	[illegible]									
[illegible] of the Organs of Locomotion.										
[illegible]										
[illegible] Tissue.										
[illegible]	[illegible]	1		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1
[illegible]	[illegible]									1
[illegible]	[illegible]									
[illegible] of upper extremities										
[illegible] of skin									[illegible]	

TABLE IX.—SURGICAL OPERATIONS, FISCAL YEAR 1901.

Operations.	No. of cases.	Remarks.
Total number of operations	**1,285**	
OPERATIONS ON TUMORS	40	
Enchondroma	1	Successful—removed inferior m illa.
Fibroma	1	Successful.
Keloid	1	Do.
Lipoma	8	Successful, 8.
Myxoma	2	Successful, 2.
Papilloma	4	Successful, 4.
Nevus	1	Improved—electrolysis.
Hematoma	1	Successful—incised.
Carcinoma of—		
Cheek	1	Successful.
Lip	2	Successful, 2.
Nose	1	Successful, 1.
Tongue	2	Recovery, 1; died, 1.
Glands of neck	2	Unsuccessful, 2.
Stomach and liver	1	Laparotomy—died.
Penis	3	Successful, 3.
Epithelioma of—		
Lip	3	Do.
Face	1	Successful, 1.
Sarcoma of—		
Neck	2	Unsuccessful, 2.
Chest	2	Successful, 2.
Thigh	1	Recovery, 1.
OPERATIONS ON CYSTS	20	
Bursal cysts	3	Successful, 3.
Dermoid cysts	2	Successful, 2.
Gelatinous cysts	1	Successful, 1.
Sebaceous cysts	14	Successful, 14; excised, 10; inc and curetted, 4.
EVACUATION OF ABSCESSES:		
By free incision and drainage	135	
Abscess of—		
Face	6	Successful, 5; unsuccessful, 1.
Lip	1	Successful, 1.
Tonsil	1	Do.
Neck	12	Successful, 11; still under t ment, 1.
Axilla	4	Successful, 4.
Forearm	5	Successful, 5.
Hand	29	Successful, 29.
Palm	4	Successful, 4.
Finger	13	Successful, 13.
Chest	2	Successful, 2.
Abdominal wall	1	Successful, 1.
Subphrenic	1	Recovery, 1.
Perinephritic	1	Do.
Peritoneal	1	Do.
Psoas	1	Improved, 1.
Lumbar	2	Recovery, 1; died, 1.
Ischiorectal	19	Successful, 18; still under t ment, 1.
Perineum	1	Successful, 1.
Penis	2	Successful, 2.
Prepuce	1	Successful, 1.
Scrotum	3	Successful, 3.
Testicle	1	Successful, 1.
Periurethral	4	Successful, 4.
Gluteal	3	Successful, 3.
Hip	2	Successful, 2.
Thigh	4	Successful, 4.
Knee	1	Successful, 1.
Patellar	2	Successful, 2.
Leg	3	Successful, 3.
Foot	4	Successful, 4.
Toe	1	Successful, 1.
REMOVAL OF FOREIGN BODIES	7	
From—		
Chest	2	Successful, 2; removed bulle
Ulnar and radius	1	Successful, 1; removed silve used in operation to unite
Thigh	2	Recovery, 2; removed bullet,
Knee	2	Recovery, 2; removed bullet moved loose body, 1.

[illegible] IX.—SURGICAL OPERATIONS, FISCAL YEAR 1901—Continued.

Operations	No. of cases	Remarks
[illegible] ANEURISM	1	
[illegible] femoral	1	Successful; ligation on each side and dissection out aneurysm
[illegible] VEINS	61	
[illegible] leg	61	Successful 61
[illegible] LYMPHATIC SYSTEM	251	
[illegible] glands		
[illegible]	1	Successful 1
[illegible]	6	Successful 6; for tubercular disease 6
[illegible]	176	Successful 158; improved 2; under treatment 5
[illegible] and drainage of glands		
[illegible]	1	Successful 1
[illegible]	115	Successful 108; unsuccessful 3; improved 1; still under treatment 3
[illegible] glands of groin	1	Successful; injected with [illegible] formaldehyde.
[illegible] AND SKIN TRANSPLANTATIONS	39	
[illegible]		Recovery [illegible] operation 1.
[illegible]	1	Successful 1
[illegible]	1	Successful 1; incised and curetted 1
[illegible]	2	Successful 2; incised and curetted 2
[illegible]	[illegible]	Successful; wound sutured 1
[illegible]	[illegible]	Successful; grafted 1
[illegible]	[illegible]	Successful; skin grafted 1; [illegible] 2
[illegible]		Successful 1; Reverdin's method skin grafting
[illegible]	[illegible]	Successful; excision portion of nail 1
[illegible]	116	
[illegible]		
[illegible]		Successful; [illegible]
[illegible]		Successful; tubercular
[illegible]		Successful; [illegible]
[illegible]	2	Successful 1; unsuccessful 1
[illegible]		
[illegible]	[illegible]	Successful;
[illegible]	[illegible]	Successful;
[illegible]	[illegible]	1b.
[illegible]	[illegible]	Successful; for [illegible]
[illegible]	[illegible]	Successful 1
[illegible]	[illegible]	1b.
[illegible]	[illegible]	1b.
[illegible]	[illegible]	1b.
[illegible]	[illegible]	1b.
[illegible]		
[illegible]		
[illegible]	[illegible]	1b.
[illegible]	2	Successful 2
[illegible]	2	Successful; [illegible]
[illegible]	1	Successful 1
[illegible]	2	Successful 1; [illegible]
[illegible]	[illegible]	Remaining under treatment
[illegible]	1	Successful; [illegible]
[illegible]	4	Successful; [illegible]
[illegible]	2	Successful; [illegible]
[illegible]	1	Successful; [illegible]
[illegible]	1	1b.
[illegible]	[illegible]	Successful
[illegible]	1	Recovery; removed [illegible] to medication and [illegible]
[illegible] fractures		
[illegible]	2	Successful; [illegible]
[illegible]		Successful 1; [illegible] Successful 2; fractured [illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.			Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.				
DISEASES OF THE GENERATIVE SYSTEM—Continued.									
Pruritus of the scrotum								1	1
Hydrocele of the spermatic cord	1		1						1
Varicocele		6	3	2			1	20	26
Hydrocele of tunica vaginalis		6	4	1			1	8	14
Inflammation of the testicle—									
Acute orchitis		9	7	2				26	35
Chronic orchitis		1					1		1
Epididymitis		2	2					4	6
Abscess of testicle		1		1					1
Spermatorrhea								7	7
Impotence								1	1
DISEASES OF THE ORGANS OF LOCOMOTION	7	42	15	28	2		4	119	168
Inflammation of the bones—									
Osteitis		1	1					2	3
Periostitis		1		1					1
Caries		1	1					2	3
Necrosis	2	4	2	4				4	10
Acromegaly		1					1		1
Inflammation of joints—									
Acute synovitis	2	5	2	4			1	11	18
Chronic synovitis		3		2					3
Anchylosis	1	1					1	10	12
Relaxation of ligaments								1	1
Posterior curvature of spine, angular	1						1		1
Myalgia		13	5	8				54	67
Lumbago		3	2					25	28
Adhesion of tendons		1							1
Contraction of tendons		1						1	2
Inflammation of sheaths of tendons								1	1
Thecal abscess		1							1
Inflammation of bursæ—									
Acute		4	2	2				1	5
Chronic	1			1					1
Abscess of bursæ		1						1	2
Bunion		1			1			2	3
Flat foot								4	4
DISEASES OF THE CONNECTIVE TISSUE	6	68	39	25	2	1	7	79	153
Inflammation	1	16	10	5			2	31	48
Abscess	5	50	28	20	2	1	4	48	103
Gangrene		1	1						1
Œdema		1					1		1
DISEASES OF THE SKIN	6	90	53	33	2		8	351	447
Erythema		2	2					5	7
Pityriasis rosea								1	1
Urticaria		1					1	7	8
Prickly heat								2	2
Eczema	1	10	8	2			1	68	79
Impetigo								2	2
Prurigo								3	3
Psoriasis		2	1	1				6	8
Herpes		1	1					7	8
Zona		3	2				1	4	7
Pemphigus								3	3
Acne		1	1					18	19
Sycosis		1		1				4	5
Seborrhea								1	1
Melasma								1	1

TABLE [illegible].—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

Diseases.	Remaining under treatment from previous year.	Admitted during the year.	Discharged: Recovered.	Discharged: Improved.	Discharged: Not improved.	Died.	Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
[illegible]									
[illegible]	5	[illegible]	[illegible]	17			5	[illegible]	[illegible]
[illegible]		[illegible]	1		1				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	1			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	1				[illegible]	[illegible]
[illegible]		[illegible]	1	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	1				[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]		[illegible]						[illegible]	[illegible]
[illegible]								[illegible]	[illegible]
[illegible]								[illegible]	1
Aggregate	18	428	281	143	9	4	27	849	1,293
[illegible]									
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]

TABLE VII.—TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

District.	Number of cases.								
	Remaining under treatment from previous year.	Admitted during the year.	Discharged.				Remaining under treatment at close of year.	Number furnished office relief.	Number treated in hospital and dispensary.
			Recovered.	Improved.	Not improved.	Died.			
LOCAL INJURIES—Continued.									
Wound of parietes of abdomen		1	1					2	1
Contusion of the pelvis		2	1	1					1
Contusion of the perineum, scrotum, or penis		2	2					1	1
Wound of the male urethra, perineum, scrotum, testis, or penis		1	1					7	1
Wound of rectum		1		1					1
Gunshot wound	1		1						1
Contusion of testicle								1	1
Contusion of upper extremities		22	14	8				60	12
Sprain of shoulder	1	5	4	2				21	12
Sprain of elbow		3	2	1				3	1
Sprain of wrist		4	2	2				25	12
Sprain of hand								3	1
Sprain of thumb								5	1
Sprain of fingers								6	1
Wound of upper extremities		57	31	18	1		7	197	2
Fracture of clavicle		6	4		1		1	3	
Fracture of humerus		3	1				1		
Fracture of bones of forearm—									
Radius		2	2	1				4	
Ulna		2		2				2	
Both bones		3	3					1	
Fracture of carpus, metacarpus, or phalanges		1	1					15	1
Dislocation of clavicle								2	
Dislocation of humerus		3	2	1				4	
Dislocation of phalanges of thumb								1	
Dislocation of phalanges of fingers		1		1				2	
Dislocation of carpus								2	
Contusion of lower extremities	1	44	24	20				51	1
Sprain of hip								5	
Sprain of knee		15	7	7			1	22	
Sprain of ankle		29	18	9	1		1	36	
Sprain of foot		1	1					4	
Wound of lower extremities	2	36	21	14			3	86	1
Wound of joint, lower extremities		1					1		
Rupture of bursæ		2		2					
Fracture of femur	1	6	4				3		
Fracture of cervix femoris	1	2		1	1		1		
Fracture of patella		3	2	1				1	
Fracture of tibia	4	14	14	1		1	2	5	
Fracture of fibula	2	6	7				1	1	
Fracture of tibia and fibula		8	5	2			1	4	
Fracture of bones of foot		3	2				1	1	
Of the metatarsus		1		1				2	
Of the phalanges of the toes		5	2	3				1	
Dislocation of tibia		2	1	1					
Malingering		1			1				
QUARANTINE.									
TOTAL CASES	3	44	38	3	2	3	1	23	
General Diseases	2	32	31		2		1	11	
Smallpox	2	18	19				1		
Influenza								1	
Enteric fever								2	

TABULAR STATEMENT, BY DISTRICTS, OF DISEASES AND INJURIES TREATED DURING THE YEAR ENDED JUNE 30, 1901—Continued.

PACIFIC—Continued.

[illegible]	Remaining under treatment from previous year	Admitted during the year	Discharged: Recovered	Discharged: Improved	Discharged: Not improved	Discharged: Died	Remaining under treatment at close of year	Number furnished office relief	Number treated in hospital and dispensary
[illegible]		1	[illegible]						3
[illegible]		[illegible]	[illegible]					[illegible]	11
[illegible]		[illegible]	1					[illegible]	3
		1			1				1
[illegible]		1			1				1
								2	2
								1	1
[illegible]	1	[illegible]	2	1		2		[illegible]	18
THE CIRCULATORY SYSTEM.									
[illegible]		2				2			2
[illegible] heart, fatty		2				2			2
THE RESPIRATORY SYSTEM.									
[illegible]								1	3
[illegible]								2	2
[illegible]								1	1
THE DIGESTIVE SYSTEM.								[illegible]	3
[illegible]								1	1
[illegible]								1	1
								1	1
THE LYMPHATIC SYSTEM.	[illegible]		[illegible]						1
[illegible]	1								1
THE GENERATIVE SYSTEM.		[illegible]	1					1	2
[illegible]								1	1
[illegible]		[illegible]	[illegible]						1
THE CONNECTIVE TISSUE.								[illegible]	1
								1	1
THE SKIN.		[illegible]		[illegible]					1
									1
		[illegible]	[illegible]	2		1		[illegible]	12
[illegible]									
[illegible]		[illegible]	[illegible]			[illegible]			[illegible]
[illegible]		1				1			1
[illegible]		[illegible]	[illegible]						[illegible]
[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
[illegible]		[illegible]		[illegible]					1
[illegible]								[illegible]	1
[illegible]		[illegible]							1
[illegible]									
									1
[illegible] lower extremities									1
[illegible] lower extremities									1

[illegible]

TABLE VIII.—TABULATED STATEMENT, BY DISTRICTS, OF CAUSES OF MORTALITY AMONG PATIENTS OF THE SERVICE DURING THE YEAR ENDED JUNE 30, 1901.

Causes of death.	Total.	Districts.								
		North Atlantic.	Middle Atlantic.	South Atlantic.	The Gulf.	The Ohio.	The Mississippi.	The Great Lakes.	The Pacific.	Quarantine stations.
Total deaths from all causes	421	33	63	61	43	25	48	69	76	3
FROM DISEASES	397	32	63	57	41	22	43	65	72	2
FROM INJURIES	24	1		4	2	3	5	4	4	1
General Diseases	192	14	29	25	14	8	22	36	44	
Smallpox	1			1						
Measles	1			1						
Influenza	2						1	1		
Mumps	1			1						
Diphtheria	1								1	
Cerebro-spinal fever	1								1	
Enteric fever	27	2	2	4		1	2	15	1	
Choleraic diarrhea	1	1								
Dysentery	2				2					
Beriberi	1	1								
Malarial fever:										
Intermittent	2		1		1					
Remittent	6			1	2		2		1	
Erysipelas	2				1				1	
Septicæmia	2			1	1					
Tetanus	1							1		
Tubercle	110	8	22	14	4	7	13	13	29	
Syphilis:										
Primary	2	1	1							
Secondary	7			1	1		1	1	3	
Scurvy	1								1	
Alcoholism	3							1	2	
Rheumatic fever	3		1		1				1	
Rheumatism	2						1		1	
New growth, malignant:										
Sarcoma	2	1	1							
Carcinoma	4				1			2	1	
Carcinoma, glandular	1						1			
Squamous carcinoma	1							1		
Epithelioma	1							1		
Leucocythemia	1								1	
Diabetes mellitus	2		1	1						
Debility	1						1			
Local Diseases	205	18	34	32	27	14	21	29	28	2
DISEASES OF THE NERVOUS SYSTEM	37	5	7	9	6		2	3	5	
Neuritis	1			1						
Degeneration spinal column	3		1					1	1	
Inflammation of brain	7	2	2	1	1		1			
Inflammation of dura mater	1	1								
Hemorrhage of brain	6		2	1	1				2	
Hyperemia	2			1				1		
Apoplexy	3	2					1			
Paralysis										
Paraplegia	3		1	1						
Hemiplegia	4			2				1		
Local paralysis	1									
Incomplete paralysis	1								1	
Epilepsy	2		1							
Mania, acute	1								1	
Dementia	1			1						
General paralysis of the insane	1			1						
DISEASES OF THE CIRCULATORY SYSTEM	51	6	5	3	7	7	6	8	7	2
Pericarditis	3					1		1	1	
Endocarditis	3				1			2		
Valvular disease:										
Aortic	15	2	2	2	2	2		2	2	
Mitral	19	3	2	1	1	3	5	2	2	
Fatty degeneration of heart	3								1	2
Dilatation of heart	1							1		
Endarteritis	1				1					
Aneurism of arteries	5	1			2	1	1			
Embolism	1		1							
DISEASES OF THE RESPIRATORY SYSTEM	57	4	9	13	1	6	7	7	10	
Bronchitis—catarrhal, chronic	4		1	3						
Spasmodic asthma	1			1						
Congestion of lung	1					1				

ISION OF SANITARY REPORTS AND STATISTICS.

PUBLIC HEALTH REPORTS.

The Public Health Reports for the calendar year ended December 31, 1900, was so large, containing 3,182 pages, that it was thought best to make two volumes of it, each volume containing the reports for six months. The first six months of the year 1900 were included in the annual report of that year, so that the period of time to be considered extends from July 1, 1900, to June 30, 1901.

UNITED STATES.

The reports from State and municipal health officers have increased a little, but are still far from being complete.

Reports were received from 1,447 cities and towns, aggregating, according to the census of 1900, [illegible], with a total of deaths of [illegible], making the average mortality for [illegible], which is probably a little too small, as the total population given was taken by the census one year later than the [illegible] of deaths reported.

The table for the year 1900 was published in the Public Health Reports, [illegible]. Reports were received from [illegible] cities and towns of the United States having [illegible] the census of 1900, [illegible] with a total of [illegible] deaths of [illegible], making the average mortality [illegible].

Reports are received weekly [illegible] from [illegible] stations, including [illegible], and from [illegible] of the [illegible] States and [illegible] stations [illegible] from [illegible] making the report [illegible].

A table entitled "Mortality [illegible] of the United States for the year [illegible] December [illegible] was published in the Public Health Reports [illegible]. The report [illegible] data received in response to [illegible] was sent to every city and town in the United States [illegible] population of [illegible] and more. The appearance of the table was delayed in order to get the figures of the last [illegible] report [illegible] estimating the mortality.

The table for the year 1900 [illegible] published in the near future.

The country is to be congratulated [illegible] having escaped yellow fever during the last fiscal year. But as if to offset this good fortune, plague has made its appearance in San Francisco, as shown by the table given below, which runs back previous to the beginning of the fiscal year.

It will be seen from the first table that 22 cases, all fatal, occurred from March 7 to December 7, 1900, and from January 6 to April 4, 1901, 12 cases, all fatal.

PLAGUE.

Plague in the United States as reported to the Surgeon-General United States Marine-Hospital Service.

JUNE 29 TO DECEMBER 28, 1900.

Place.	Date.	Cases.	Deaths.
California:			
San Francisco	Mar. 7 July 6	13	13
Do	Aug. 11	1	1
Do	Aug. 15	1	1
Do	Oct. 5	1	1
Do	Oct. 10	1	1
Do	Oct. 14	1	1
Do	Nov. 1	2	2
Do	Nov. 4	1	1
Do	Dec. 7	1	1
Total for State		22	22

JANUARY 1 TO JUNE 28, 1901.

California:			
San Francisco	Jan. 6	1	1
Do	Jan. 15	2	2
Do	Feb. 5	1	1
Do	Feb. 6	1	1
Do	Feb. 7	1	1
Do	Feb. 10	1	1
Do	Feb. 11	1	1
Do	Feb. 12	1	1
Do	Mar. 2	1	1
Do	Apr. 1	1	1
Do	Apr. 4	1	1
Total for State		12	12

TUBERCULOSIS.

In order to learn the extent to which sanitary laws and regulations have been applied to the management of tuberculosis, the following letter was sent to health officers of the different States and Territories:

TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL, U. S. M. H. S.,
Washington, D. C., February 21, 1901.

SIR: Please inform this Bureau if there is any State or municipal law or regulation in your State requiring the registration or notification of cases of tuberculosis.

Respectfully,

WALTER WYMAN,
Surgeon-General, U. S. M. H. S.

STATE HEALTH OFFICER.

Of the 51 States and Territories no reply was received from 13; and of the 38 who replied only 7 reported having laws bearing on the subject.

SMALLPOX.

During the year smallpox has occurred in every State and Territory in the Union with the exception of Arizona, from which no reports have been received.

e number of cases reported for the six months ended December 1900, was 7,805, with 137 deaths, a mortality of 1.75 + per cent.
For the six months ended June 30, 1901, 30,710 cases were reported, 552 deaths, a mortality of 1.79 + per cent.
For the whole year the number of cases was 38,506 and deaths 689, mortality 1.77 per cent, as compared with 15,053 cases and 735 deaths during the year ended June 30, 1900, a mortality of 4.8 per cent.
Thus it is seen that while more than twice as many cases have been reported during the year just ended, the mortality has been less than what it was in the preceding year. This is probably to be explained by the fact that cases as well as deaths were more fully reported during the year just ended, while in the preceding year, though most of the deaths from smallpox were reported, there is no doubt that a great many cases of the disease, for various reasons, were not reported. According to this explanation the lower figures, are nearer the correct mortality, and even this may be a little excessive, as deaths are more apt to be reported than cases.

[illegible] in the United States, as reported to the Surgeon-General, [illegible] States Marine-Hospital Service, June 30, [illegible]

Places	Date	Cases	Deaths	Remarks
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Smallpox in the United States as reported to the Surgeon-General United States Mar Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
District of Columbia:				
Washington	June 18-July 23	24	.....	
	Oct. 28-Dec. 13	9	.....	
Total for District of Columbia		33	.....	
Florida:				
Jacksonville	July 1-July 7	1	.....	
Madison County	Sept. 19	30	.....	
Total for State		31	.....	
Georgia:				
Houston County	Dec. 1-Dec. 7	24	1	
Illinois:				
Cairo	Nov. 18, 1899-July 21, 1900.	117	6	
	Nov. 27	1	.....	
Chicago	June 24-July 14	4	.....	
	Dec. 2-Dec. 15	3	.....	
Total for State		125	6	
Indiana:				
Allen County	Nov. 28	7	1	
Cass County	Sept. 1-Oct. 31	8	1	
Clark County	June 1-June 30	3	.....	
Clay County	do	1	1	
Clinton County	do	2	.....	
Delaware County	Sept. 1-Sept. 30	14	.....	
Evansville	July 1-July 7	1	.....	
Frankton	July 1-July 31	4	1	
Gibson County	June 1-July 31	2	.....	
Grant County	Oct. 1-Oct. 31	1	.....	
Green County	June 1-July 31	14	.....	
Jackson County	Aug. 21-Nov. 3	2	.....	
Jasper County	Sept. 1-Sept. 30	11	.....	
Jay County	do	3	.....	
Jennings County	Sept. 1-Nov. 18	2	1	
Johnson County	June 1-July 31	1	.....	
Keystone	July 1-July 31	1	.....	
Kirklin	do	2	.....	
Knox County	Oct. 1-Oct. 31	1	.....	
Hammond	July 1-July 31	1	.....	
Lawrence County	June 1-July 31	9	.....	
Loogootee	July 1-July 31	2	2	
Madison County:				
Alexandria	June 1-July 31	12	1	
Anderson	do	28	.....	
Elwood	do	20	.....	
Marion County:				
Indianapolis	June 1-Nov. 18	5	.....	
Irvington	June 1-July 31	9	.....	
Marshall County	Oct. 1-Oct. 31	1	.....	
Miami County	Sept. 1-Sept. 30	1	.....	
Michigan City	July 15-July 31	1	.....	
Newton County	Sept. 1-Sept. 30	8	.....	
Perry County	do	1	.....	
Rockfield	July 1-July 31	1	.....	
Monticello	July 1-Oct. 31	2	1	
Starke County	June 1-June 30	3	.....	
Sullivan County	Aug. 1-Oct. 31	1	.....	
Vallonia	Nov. 19	5	.....	
Warren County	do	1	.....	
Washington County	Nov. 27	1	.....	
Wheeling	do	5	.....	
Vanderburg County	do	2	.....	
Total for State		199	9	
Indian Territory:				
Lebanon	Nov. 17	.....	.....	Smallpox reported.
Iowa:				
Des Moines	June 1-Aug. 31	13	.....	
	Oct. 1-Oct. 31	1	.....	
Total for State		14	.....	

[illegible] on the United States as reported to the Surgeon-General United States Marine-Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date		Cases	Deaths	Remarks
Kansas					
Bourbon County	Oct. 1-Oct.	31	2		
Cherokee County	Sept. 1-Nov.	30	13		
Crawford County	July 1-Sept.	30	15		
Dickinson County	Oct. 1-Nov.	30	7		
Douglas County	Sept. 1-Nov.	30	6		
McPherson County	Oct. 1-Oct.	31	1		
Marion County	Nov. 1-Nov.	30	1		
Rawlins County	Oct. 1-Nov.	30	14		
Rush County	Oct. 1-Oct.	31			Some cases
Shawnee County	July 1-Nov.	30	17		
Sumner County	do		14		
Thomas County	Nov. 1-Nov.	30	4		
Wichita	June 17-Dec.	1[illegible]	63	1	
Total for State			161	1	
Kentucky					
Covington	June 30-July	15	12		
Lexington	Oct. 7-Dec.	1[illegible]	11		
Russell	Nov. 30				[illegible]
Total for State			6[illegible]		
Louisiana					
Caddo	June 17-Aug.	4	[illegible]		
Caldwell	June 17-July	2[illegible]	[illegible]		
New Orleans	June 17-Dec.	[illegible]	[illegible]	63	
Shreveport	June 17-Aug.	4	[illegible]		[illegible]
St. Tammany	Oct. 26-Dec.	[illegible]	[illegible]	[illegible]	
Total for State			[illegible]		
Maryland					
Baltimore	June 26-Sept.	[illegible]			
Cumberland	June 17-[illegible]	[illegible]	[illegible]		
Prince George County	Nov. [illegible]-Nov.	[illegible]	[illegible]		
Total for State			[illegible]		
Massachusetts					
Fall River	June 26-Sept.	[illegible]	[illegible]		
Lowell	July 15-Aug.	[illegible]			
Taunton	Oct. 26-Nov.	[illegible]	[illegible]		
Total for State			[illegible]		
Michigan					
Center	Dec. 1		[illegible]		
Forth County	Oct. 16-Nov.				
Grand Rapids	Nov. [illegible]-Dec.	[illegible]	[illegible]		
Houghton County	Aug. 12-Nov.	[illegible]	[illegible]		
Indian County	July 29-Aug.	[illegible]			
Jackson	July 1-[illegible]		[illegible]		
Mason County	Dec. 1		[illegible]		
Mason River Township	Oct. 16-Nov.	[illegible]	[illegible]		
Newaygo	July 1-[illegible]	[illegible]			
Wayne County	June 1-Dec.	[illegible]	[illegible]		
Other points	Oct. 26-Nov.	[illegible]	[illegible]		
Total for State			[illegible]		
Minnesota					
Albany	June 25-[illegible]	[illegible]	[illegible]		
Anoka County	June 16-Nov.	[illegible]	[illegible]		
Atwater	July 1-Nov.	[illegible]			
Benton County	June 25-[illegible]	[illegible]	[illegible]		
Carlton	June 16-Dec.	[illegible]	[illegible]		
Cassel County	June 25-Aug.	[illegible]			
Cass County	July 1-Aug.	[illegible]			
Crow Wing County	July 1-Nov.	[illegible]	[illegible]		
Duluth	June [illegible]-Dec.	[illegible]	[illegible]		
Fairbault County	Aug. 1-Aug.	[illegible]			
Goodhue County	July 1-Nov.	[illegible]	[illegible]		
Hennepin County	July 1-Dec.	[illegible]	[illegible]		
Hubbard County	Aug. [illegible]-Aug.				
Itasca County	July 1-Nov.	[illegible]			
Kandiyohi County	July [illegible]-Dec.	[illegible]	[illegible]		
Lake County	[illegible]		[illegible]		
Lamoure County	[illegible]		[illegible]		

Smallpox in the United States as reported to the Surgeon-General United States Marin Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Minnesota—Continued.				
Lincoln County	July 1-Dec. 14	4	.....	
Litchfield County	June 23-Dec. 14	1	.....	
Little Falls	July 1-July 31	18	.....	
Lyon County	Nov. 8-Dec. 14	29	.....	
McLeod County	July 1-Nov. 8	2	.....	
Martin County	Aug. 1-Aug. 31	1	.....	
Mecker County	Nov. 8-Dec. 14	10	.....	
Minneapolis	June 16-Dec. 15	86	.....	
Nicollet County	July 1-Nov. 8	1	.....	
Ottertail County	July 1-Sept. 30	38	2	
Pine County	Nov. 8-Dec. 14	2	.....	
Princeton	June 16-July 31	1	.....	
Ramsey County	Nov. 8-Nov. 22	1	.....	
Redwood County	Nov. 22-Dec. 14	6	.....	
Renville County	July 1-July 31	1	.....	
Scott County	June 16-Aug. 31	44	.....	
St. Paul	June 23-Dec. 14	12	.....	
Sherburne County	Aug. 1-Aug. 31	7	.....	
Stearns County	Nov. 22-Dec. 14	9	.....	
Steele County	....do	5	.....	
Two Harbors	July 1-Sept. 30	7	.....	
Traverse County	Aug. 1-Sept. 30	19	.....	
Wabasha	....do	8	.....	
Wilkin County	Nov. 22-Dec. 14	2	.....	
Winona County	July 29-Nov. 8	18	.....	
	Nov. 22-Dec. 15	120	.....	
Winsted	July 1-Sept. 30	18	.....	
Wadena County	July 29-Aug. 4	7	.....	
Wright County	June 16-Dec. 14	29	.....	
Total for State	.....	875	5	
Mississippi:				
Ocean Springs (vicinity)	July 19	11	.....	
Missouri:				
St. Joseph	Oct. 1-Oct. 31	1	.....	
St. Louis	Nov. 2-Dec. 16	10	.....	
Total for State	.....	11	.....	
Montana:				
Butte	July 17-Sept. 20	25	.....	
Nebraska:				
Omaha	June 24-Dec. 8	16	.....	
New Hampshire:				
Manchester	June 17-Dec. 15	73	.....	
New Jersey:				
Jersey City	June 18-June 24	1	.....	
	Dec. 10-Dec. 16	1	.....	
Newark	June 17-June 23	4	.....	
Total for State	.....	6	.....	
New York:				
New York	June 17-Aug. 25	9	2	
	Nov. 4-Dec. 15	54	4	
Total for State	.....	63	6	
North Carolina:				
Charlotte	June 1-July 31	11	.....	
Wilmington	....do	8	.....	
Alamance County	May 1-Oct 31	2	.....	
Buncombe County	....do	6	.....	
Burke County	....do	22	.....	
Cabarrus County	....do	5	.....	
Caswell County	....do	19	.....	
Chatham County	....do	1	.....	
Cherokee County	....do	4	.....	
Cleveland County	....do	5	.....	
Craven County	....do	27	.....	
Davidson County	....do	9	.....	
Davie County	....do	9	.....	
Durham County	....do	11	.....	
Edgecombe County	....do	2	.....	
Forsyth County	....do	25	.....	

Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places	Date	Cases	Deaths	Remarks
North Carolina—continued:				
Franklin County	May 1-Oct [illegible]		Many	
Gaston County	do	1		
Granville County	do	[illegible]		
Guilford County	do	[illegible]		
Halifax County	do	1		
Harnett County	do	[illegible]		
Haywood County	do	[illegible]		
Henderson County	do	[illegible]		
Hertford County	do	[illegible]		
Iredell County	do	[illegible]		
Johnston County	do	[illegible]		
Lenoir County	Aug 1-Aug [illegible]	1		
Mecklenburg County	May 1-Aug [illegible]	[illegible]		
Moore County	do	[illegible]		
Nash County	do	12		
New Hanover County	do	[illegible]		
Orange County	do	[illegible]		
Pamlico County	Oct 1-Oct [illegible]	[illegible]		
Person County	May 1-Aug [illegible]	[illegible]		
Randolph County	do	[illegible]		
Robeson County	Oct 1-Oct [illegible]	[illegible]		
Rockingham County	May 1-Aug [illegible]	[illegible]		
Rutherford County	do		[illegible]	
Vance County	Aug 1-Aug [illegible]			[illegible]
Wake County	Oct 1-Oct [illegible]	[illegible]		
Wilson County	Aug 1-Aug [illegible]	12		
Total for State		[illegible]		
North Dakota:				
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
Total for State		[illegible]		
Ohio:				
Cincinnati	[illegible]	[illegible]		
Portsmouth	[illegible]	[illegible]		
Youngstown	[illegible]	[illegible]		
Allen County				
[illegible] Township	[illegible]			
Ashtabula County	Jan [illegible]			
Auglaize County	Jan [illegible]			
Brown County	[illegible]	[illegible]		
Butler County	[illegible]	[illegible]		
Clark County	[illegible]			
Clermont County				
New Richmond	[illegible]			
Columbiana County				
[illegible]	[illegible]			
Crawford County				
[illegible] Township	[illegible]			
Cuyahoga County				
Berea	[illegible]			
Brooklyn Township	[illegible]			
Cleveland	Jan [illegible]	[illegible]		
[illegible] Township	Jan [illegible]			
East Cleveland	[illegible]			
[illegible]	[illegible]			
[illegible] Township	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
Lakewood	[illegible]			
Newburgh	[illegible]			
West Park Township	[illegible]			
[illegible] County	[illegible]	[illegible]		
[illegible] County				
[illegible] Township	[illegible]	[illegible]		
[illegible] County	[illegible]	[illegible]		
[illegible]	[illegible]			
Franklin County				
Columbus	Ja[illegible]			
Fulton County				
Wauseon	[illegible]			
Geauga County				
Burton	[illegible]			
Guernsey County				
Cambridge	[illegible]	[illegible]		
Hamilton County				
Cincinnati	[illegible]	[illegible]		
Hyde Park	[illegible]			

PORT OF THE DIVISION OF SANITARY REPORTS AND STATISTICS.

By George Tully Vaughan,
Surgeon, U. S. Marine-Hospital Service, in charge.

PUBLIC HEALTH REPORTS.

Public Health Reports for the calendar year ended December 31, was so large, containing 3,182 pages, that it was thought make two volumes of it, each volume containing the reports months. The first six months of the year 1900 were included annual report of that year, so that the period of time to be con- extends from July 1, 1900, to June 30, 1901.

UNITED STATES.

reports from State and municipal health officers have increased but are still far from being complete.

rts were received from 1,447 cities and towns, aggregating, ng to the census of 1900, 20,929,783, with a total of deaths of , making the average mortality for 1,000 16.61, which is prob- ttle too small, as the total population given was taken by the one year later than the number of deaths was reported.

able for the year 1900 was published in Public Health Reports, r 4, 1901. Reports were received from 1,190 cities and towns United States, having, according to the census of 1900, ons inhabitants, with a total of deaths from all causes of , making the average mortality 17.47 per 1,000 inhabitants.

rts are received weekly from 52 national quarantine and inspec- tions, including Cuba and the island possessions, and from the 28 State and municipal quarantine stations, some of them ering the request for reports.

ble entitled "Mortality statistics of 1,447 cities and towns of ted States for the year ended December 31, 1900," was pub n Public Health Reports No. 19, May 10, 1901. This report from data received in response to a circular letter which was every city and town in the United States having a population 8,000 more. The appearance of the table was delayed in order the figures of the last census report for comparison in estimat mortality.

able for the year 1900 is nearly complete, and will probably be ed in the near future.

country is to be congratulated on having escaped yellow fever the last fiscal year, but as if to offset this good fortune, plague le its appearance in San Francisco, as shown by the tables given which run back previous to the beginning of the fiscal year.

It will be seen from the first table that 22 cases, all fatal, occurred from March 7 to December 7, 1900, and from January 6 to April 4, 1901, 12 cases, all fatal.

PLAGUE.

Plague in the United States as reported to the Surgeon-General United States Marine-Hospital Service.

JUNE 29 TO DECEMBER 28, 1900.

Place.	Date.	Cases.	Deaths.
California:			
San Francisco	Mar. 7 July 6	13	13
Do	Aug. 11	1	1
Do	Aug. 15	1	1
Do	Oct. 5	1	1
Do	Oct. 10	1	1
Do	Oct. 14	1	1
Do	Nov. 1	2	2
Do	Nov. 4	1	1
Do	Dec. 7	1	1
Total for State		22	22

JANUARY 1 TO JUNE 28, 1901.

California:			
San Francisco	Jan. 6	1	1
Do	Jan. 15	2	2
Do	Feb. 5	1	1
Do	Feb. 6	1	1
Do	Feb. 7	1	1
Do	Feb. 10	1	1
Do	Feb. 11	1	1
Do	Feb. 12	1	1
Do	Mar. 2	1	1
Do	Apr. 1	1	1
Do	Apr. 4	1	1
Total for State		12	12

TUBERCULOSIS.

In order to learn the extent to which sanitary laws and regulations have been applied to the management of tuberculosis, the following letter was sent to health officers of the different States and Territories:

TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL, U. S. M. H. S.,
Washington, D. C., February 21, 1901.

SIR: Please inform this Bureau if there is any State or municipal law or regulation in your State requiring the registration or notification of cases of tuberculosis.

Respectfully,

WALTER WYMAN,
Surgeon-General, U. S. M. H. S.

STATE HEALTH OFFICER.

Of the 51 States and Territories no reply was received from 13; and of the 38 who replied only 7 reported having laws bearing on the subject.

SMALLPOX.

During the year smallpox has occurred in every State and Territory in the Union with the exception of Arizona, from which no reports have been received.

The number of cases reported for the six months ended December [illegible], 1900, was 7,805, with 137 deaths, a mortality of 1.75+ per cent.

For the six months ended June 30, 1901, 30,710 cases were reported, with 552 deaths, a mortality of 1.79+ per cent.

For the whole year the number of cases was 38,506 and deaths 689, mortality 1.77 per cent, as compared with 15,053 cases and 735 deaths during the year ended June 30, 1900, a mortality of 4.8 per cent.

Thus it is seen that while more than twice as many cases have been reported during the year just ended, the mortality has been less than half what it was in the preceding year. This is probably to be explained by the fact that cases as well as deaths were more fully reported during the year just ended, while in the preceding year, although most of the deaths from smallpox were reported, there is no doubt that a great many cases of the disease, for various reasons, were not reported. According to this explanation the lower figures, 1.77, are nearer the correct mortality, and even this may be a little excessive, as deaths are more apt to be reported than cases.

Smallpox in the United States as reported to the Surgeon-General U. S. Marine-Hospital Service, June [illegible], 1900, to [illegible], 1901.

Places	Date	Cases	Deaths	Remarks
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Smallpox in the United States as reported to the Surgeon-General United States Ma Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
District of Columbia:				
Washington	June 18-July 23	24	.....	
	Oct. 28-Dec. 13	9	.....	
Total for District of Columbia		33	.....	
Florida:				
Jacksonville	July 1-July 7	1	.....	
Madison County	Sept. 19	30	.....	
Total for State		31	.....	
Georgia:				
Houston County	Dec. 1-Dec. 7	24	1	
Illinois:				
Cairo	Nov. 18, 1899-July 21, 1900.	117	6	
	Nov. 27	1	.....	
Chicago	June 24-July 14	4	.....	
	Dec. 2-Dec. 15	3	.....	
Total for State		125	6	
Indiana:				
Allen County	Nov. 28	7	1	
Cass County	Sept. 1-Oct. 31	8	1	
Clark County	June 1-June 30	3	.....	
Clay County	do	1	1	
Clinton County	do	2	.....	
Delaware County	Sept. 1-Sept. 30	14	.....	
Evansville	July 1-July 7	1	.....	
Frankton	July 1-July 31	4	1	
Gibson County	June 1-July 31	2	.....	
Grant County	Oct. 1-Oct. 31	1	.....	
Green County	June 1-July 31	14	.....	
Jackson County	Aug. 21-Nov. 3	2	.....	
Jasper County	Sept. 1-Sept. 30	11	.....	
Jay County	do	3	.....	
Jennings County	Sept. 1-Nov. 18	2	1	
Johnson County	June 1-July 31	1	.....	
Keystone	July 1-July 31	1	.....	
Kirklin	do	2	.....	
Knox County	Oct. 1-Oct. 31	1	.....	
Hammond	July 1-July 31	1	.....	
Lawrence County	June 1-July 31	9	.....	
Loogootee	July 1-July 31	2	2	
Madison County:				
Alexandria	June 1-July 31	12	1	
Anderson	do	28	.....	
Elwood	do	20	.....	
Marion County:				
Indianapolis	June 1-Nov. 18	5	.....	
Irvington	June 1-July 31	9	.....	
Marshall County	Oct. 1-Oct. 31	1	.....	
Miami County	Sept. 1-Sept. 30	1	.....	
Michigan City	July 15-July 31	1	.....	
Newton County	Sept. 1-Sept. 30	8	.....	
Perry County	do	1	.....	
Rockfield	July 1-July 31	1	.....	
Monticello	July 1-Oct. 31	2	1	
Starke County	June 1-June 30	3	.....	
Sullivan County	Aug. 1-Oct. 31	1	.....	
Vallonia	Nov. 19	5	.....	
Warren County	do	1	.....	
Washington County	Nov 27	1	.....	
Wheeling	do	5	.....	
Vanderburg County	do	2	.....	
Total for State		199	9	
Indian Territory:				
Lebanon	Nov. 17	.....	.....	Smallpox reported.
Iowa:				
Des Moines	June 1-Aug. 31	13	.....	
	Oct. 1-Oct. 31	1	.....	
Total for State		14	.....	

Smallpox in the United States as reported to the Surgeon-General, United States Marine-Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Kansas:				
Bourbon County	Oct. 1–Oct. [illegible]	[illegible]		
Cherokee County	Sept. 1–Nov. [illegible]	[illegible]		
Crawford County	July 1–Sept. [illegible]	[illegible]		
Dickinson County	Oct. 1–Nov. [illegible]	[illegible]		
Douglas County	Sept. 1–Nov. [illegible]	[illegible]		
[illegible] County	Oct. 1–Oct. [illegible]	[illegible]		
[illegible]	Nov. 1–Nov. [illegible]	[illegible]		
[illegible]	Oct. 1–Nov. [illegible]	[illegible]		
[illegible]	Oct. 1–Oct. [illegible]	[illegible]		[illegible]
[illegible] County	July 1–Nov. [illegible]	[illegible]		
[illegible] County	[illegible]	[illegible]		
[illegible] County	Nov. 1–Nov. [illegible]	[illegible]		
Wichita	June 17–Dec. [illegible]	[illegible]		
Total for State		[illegible]	[illegible]	
Kentucky:				
Michigan:				
Minnesota:				
Hennepin County	[illegible]	[illegible]		
[illegible] County	[illegible]	[illegible]		
[illegible] County	[illegible]	[illegible]		
Kandiyohi County	[illegible]	[illegible]		
Lake County	[illegible]	[illegible]		
[illegible] County	[illegible]	[illegible]	[illegible]	

Smallpox in the United States as reported to the Surgeon-General United States Marine Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Minnesota—Continued.				
Lincoln County	July 1-Dec. 14	4	.....	
Litchfield County	June 23-Dec. 14	1	.....	
Little Falls	July 1-July 31	18	.....	
Lyon County	Nov. 8-Dec. 14	29	.....	
McLeod County	July 1-Nov. 8	2	.....	
Martin County	Aug. 1-Aug. 31	1	.....	
Meeker County	Nov. 8-Dec. 14	10	.....	
Minneapolis	June 16-Dec. 15	86	.....	
Nicollet County	July 1-Nov. 8	1	.....	
Ottertail County	July 1-Sept. 30	38	2	
Pine County	Nov. 8-Dec. 14	2	.....	
Princeton	June 16-July 31	1	.....	
Ramsey County	Nov. 8-Nov. 22	1	.....	
Redwood County	Nov. 22-Dec. 14	6	.....	
Renville County	July 1-July 31	1	.....	
Scott County	June 16-Aug. 31	44	.....	
St. Paul	June 23-Dec. 14	12	.....	
Sherburne County	Aug. 1-Aug. 31	7	.....	
Stearns County	Nov. 22-Dec. 14	9	.....	
Steele County	do	5	.....	
Two Harbors	July 1-Sept. 30	7	.....	
Traverse County	Aug. 1-Sept. 30	19	.....	
Wabasha	do	8	.....	
Wilkin County	Nov. 22-Dec. 14	2	.....	
Winona County	July 29-Nov. 8	18	.....	
	Nov. 22-Dec. 15	120	.....	
Winsted	July 1-Sept. 30	18	.....	
Wadena County	July 29-Aug. 4	7	.....	
Wright County	June 16-Dec. 14	29	.....	
Total for State		875	5	
Mississippi:				
Ocean Springs (vicinity)	July 19	11	.....	
Missouri:				
St. Joseph	Oct. 1-Oct. 31	1	.....	
St. Louis	Nov. 2-Dec. 16	10	.....	
Total for State		11	.....	
Montana:				
Butte	July 17-Sept. 20	25	.....	
Nebraska:				
Omaha	June 24-Dec. 8	16	.....	
New Hampshire:				
Manchester	June 17-Dec. 15	73	.....	
New Jersey:				
Jersey City	June 18-June 24	1	.....	
	Dec. 10-Dec. 16	1	.....	
Newark	June 17-June 23	4	.....	
Total for State		6	.....	
New York:				
New York	June 17-Aug. 25	9	2	
	Nov. 4-Dec. 15	54	4	
Total for State		63	6	
North Carolina:				
Charlotte	June 1-July 31	11	.....	
Wilmington	do	8	.....	
Alamance County	May 1-Oct 31	2	.....	
Buncombe County	do	6	.....	
Burke County	do	22	.....	
Cabarrus County	do	5	.....	
Caswell County	do	19	.....	
Chatham County	do	1	.....	
Cherokee County	do	4	.....	
Cleveland County	do	5	.....	
Craven County	do	27	.....	
Davidson County	do	9	.....	
Davie County	do	9	.....	
Durham County	do	11	.....	
Edgecombe County	do	2	.....	
Forsyth County	do	25	.....	

the United States [illegible] Hospital Service, June [illegible]

Places [illegible] Remarks [illegible]

Smallpox in the United States as reported to the Surgeon-General United States Mari Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Ohio—Continued.				
Hancock County—				
Findlay	Jan. 1-June 30	1	.....	
Hardin County—				
McGuffey	....do	3	.....	
Henry County	....do	120	3	
Huron County—				
Bellevue	....do	9	.....	
Lake County	....do	2	.....	
Licking County	....do	2	.....	
Lorain County	....do	98	2	
Lucas County—				
Toledo	....do	3	.....	
Madison County	....do	52	.....	
Medina County—				
Lodi	....do	2	.....	
Mercer County	....do	28	.....	
Montgomery County—				
Dayton	Jan. 1-Sept. 8	9	.....	
Morrow County	Jan. 1-June 30	4	.....	
Pike County—				
Waverly	....do	2	.....	
Portage County—				
Kent	....do	1	.....	
Putnam County	....do	6	.....	
Ross County—				
Kingston	....do	1	.....	
Scioto County—				
Portsmouth	....do	1	.....	
Stark County	....do	26	1	
Summit County—				
Akron	....do	1	.....	
Trumbull County	....do	20	1	
Tuscarawas County—				
Dennison	....do	1	.....	
Union County—				
Jerome Township	....do	2	.....	
Washington County—				
Marietta	....do	1	.....	
Wayne County—				
Salt Creek Township	....do	3	.....	
Total for State		1,666	21	
Oregon:				
Portland	Oct. 31	1	.....	
Pennsylvania:				
Allegheny City	Nov. 25-Dec. 1	1	.....	
Erie	Dec. 9-Dec. 15	5	.....	
Philadelphia	June 24-Oct. 20	13	.....	
Pittsburg	June 17-July 7	5	.....	
	Nov. 18-Nov. 24	3	.....	
Steelton	Nov. 18-Dec. 8	3	.....	
Total for State		30	.....	
South Carolina:				
Greenville	July 8-July 14	1	.....	
	Nov. 25-Dec. 15	5	.....	
Total for State		6	.....	
Tennessee:				
Memphis	Nov. 11-Dec. 15	7	.....	
Nashville	Nov. 4-Dec. 8	7	.....	
Campbell County	Mar. 5-Nov. 16	11	.....	
Chatham County	....do	11	1	
Chester County	....do	35	.....	
Cumberland County	....do	23	.....	
Davidson County	....do	57	1	
Dyer County	....do	26	.....	
Franklin County	....do	31	.....	
Gibson County	....do	26	.....	
Giles County	....do	81	.....	
Grundy County	....do	41	1	
Hamblen County	....do	30	1	
Hamilton County	....do	42	1	
Haywood County	....do	2	.....	
Henry County	....do	150	.....	

Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, June 29, 1900, to December 29, 1900—Continued.

Places	Date	Cases	Deaths	Remarks
Tennessee—Continued.				
Hamilton County	Mar. 3-Nov. 16	14	.....	
Knox County	do			No report
Lauderdale County	do	12		
Lawrence County	do	14		
Lewis County	do	1		
Lincoln County	do	13		
McMinn County	do	67	2	
Marion County	do	113	2	
Moore County	do			Inc.
Montgomery County	do	9		
Obion County	do	57	1	
Putnam County	do	62	2	
Roane County	do	33		
Robertson County	do	12		
Rutherford County	do	2		
Scott County	do	1		
Shelby County	do	24	4	
Wayne County	do	3		
White County	do	2		
Williamson County	do	117		
Wilson County	do	11		
Total for state		1,011	16	
Texas.				
Beaumont	Feb. 1-June	10		
Blue Springs	Nov. 26			Smallpox reported
Carrizo	July 9	1		
Eagle Pass	Sept. 7	1		
Fort Bend County	Aug. 1, 1900	10	2	
	Aug. 1, 1900			
Galveston	Dec. 7			
Houston	Nov. 11-Dec.	6	1	
Jack County	Nov. 13	1		
Pittsburg	Nov. 20	1		
Robertson County	June 16	44	2	
San Antonio	June 1-June 8			
Smithville	Nov. 13	4		
Sublime	Nov. 14-Nov. 24	4		
Terrell	Nov. 13	1		
Tyler	Nov. 24			Inc.
Total for state		64	5	
Utah.				
Ogden	June 24-Nov. 30	40		Inc. June 1900 to Aug. 31, 1900, 9 more deaths
Salt Lake City	June 1-Dec. 1	4		
Total for state		4		
Vermont.				
Chittenden County	Aug. 7	1		
Franklin County	do	2		
Orleans County	do	2		
Total for state		5		
Virginia.				
Alexandria	Nov. 10-Dec.			
Petersburg	June 1-Aug. 31	1		
Suffolk	June 1-Aug.			
Total for state		20		
Washington.				
Lewis County	June 30			
Pierce County	Sept. 7			
Seattle	June 24-Nov. 6	6		
Tacoma	Aug. 5-Dec. 11			
Total for state		9		
West Virginia.				
Harrison County	Nov. 27	10		
Wheeling	Sept. 1-Dec. 17	11		
Total for state		29		

Smallpox in the United States as reported to the Surgeon-General United States Mari Hospital Service, June 29, 1900, to December 28, 1900—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Wisconsin:				
Milwaukee	Dec. 9–Dec. 15	1	.....	
Sixteen places	May 1–May 31	122	3	
Ten places	June 1–June 30	29	1	
Eight places	July 1–July 31	26	.....	
Six places	Aug. 1–Aug. 31	45	.....	
Ashland, Bayfield, Dane, and Eau Claire counties, and others.	Sept. 1–Dec. 11	189	.....	
Total for State	.....	412	4	
Wyoming:				
Carbon County	Dec. 10	1	.....	
Sweetwater County	do	1	.....	
Uintah County	do	2	.....	
Total for State	.....	4	.....	
Grand total	.....	7,805	137	

Smallpox in the United States as reported to the Surgeon-General United States Mari Hospital Service, December 29, 1900, to June 28, 1901.

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Lee County (Phœnix)	Dec. 26	16	.....	
Mobile	Feb. 12–Mar. 9	4	3	
Russell County (Girard)	do	25	.....	
Total for State	.....	45	3	
Alaska:				
Douglas	May 25	5	.....	Indians.
Sitka	Apr. 6	.....	.....	Prevailing among t Indians.
Total for Territory	.....	5	.....	
Arkansas:				
Newport	May 21	5	.....	
Prescott	May 1	5	.....	
Total for State	.....	10	.....	
California:				
Los Angeles	Feb. 3–June 15	37	.....	
Oakland	Dec. 30–May 31	14	.....	
Sacramento	Feb. 26–Mar. 2	1	.....	
San Francisco	Feb. 3–June 9	62	.....	
Stockton	Mar. 1–Mar. 31	1	.....	
Total for State	.....	115	.....	
Colorado:				
Arapahoe County	Nov. 13–May 31	395	3	
Archuleta County	Nov. 13–Mar. 30	3	.....	
Baca County	May 1–May 31	2	.....	
Bent County	Nov. 13–Apr. 30	25	.....	
Boulder County	Nov. 13–May 31	68	.....	
Chaffee County	do	37	.....	
Cheyenne County	Nov. 13–Mar. 30	2	.....	
Clear Creek County	do	91	.....	
Costilla County	Apr. 1–May 31	12	.....	
Custer County	Nov. 30–May 31	12	.....	
Delta County	do	144	.....	
Douglas County	Nov. 13–Mar. 30	10	.....	
Eagle County	Feb. 1–Mar. 30	4	.....	
Elbert County	Nov. 13–Mar. 30	19	.....	
El Paso County	Nov. 13–May 31	178	.....	
Fremont County	do	127	.....	
Garfield County	do	157	.....	
Gilpin County	Nov. 13–Mar. 30	3	.....	
Grand County	do	6	.....	
Gunnison County	Nov. 13–May 31	5	.....	

Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places	Date	Cases	Deaths	Remarks
Colorado (continued)				
Huerfano County	Nov. 15-Apr. 30	[illegible]		
Jefferson County	Nov. 15-May 31	[illegible]		
Lake County	do	[illegible]		
La Plata County	do	21		
Larimer County	do	[illegible]		
Las Animas County	do	[illegible]		
Mesa County	Feb. 1-May [illegible]	[illegible]		
Montezuma County	Mar. 1-May 31	[illegible]		
Montrose County	Nov. 15-May 31	[illegible]		
Morgan County	do	[illegible]		
Otero County	do	[illegible]		
Ouray County	do	[illegible]		
Park County	Feb. 28-May [illegible]	[illegible]		
Pitkin County	Nov. 1-May [illegible]	[illegible]		
Prowers County	Feb. 1-Apr. [illegible]	[illegible]		
Pueblo County	Nov. 15-May 31	[illegible]		
Rio Grande County	do	[illegible]		
Saguache County	do	2		
San Juan County	Feb. 28-May [illegible]	[illegible]		
San Miguel County	Nov. 1-Mar. [illegible]	[illegible]		
Teller County	Nov. [illegible]-May [illegible]	[illegible]		
Washington County	May [illegible]-May [illegible]	[illegible]		
Weld County	Nov. [illegible]-May [illegible]	[illegible]		
Total for the State		[illegible]		
Connecticut:				
Bridgeport	[illegible]	[illegible]		
[illegible]	[illegible]			
Total for the State		[illegible]		
[illegible]				
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
Total for the State		[illegible]		
District of Columbia:				
Washington	[illegible]	[illegible]		
Florida:				
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
Key West	[illegible]			
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]		
Total for the State		[illegible]		
Georgia:				
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]		
Total for the State		[illegible]		
Idaho:				
[illegible]	[illegible]	[illegible]		
Illinois:				
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]			
Total for the State		[illegible]		
Indiana:				
[illegible] County	[illegible]			
[illegible] County	[illegible]	[illegible]		

Smallpox in the United States as reported to the Surgeon-General United States Marin Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Indiana—Continued.				
Clinton County	Apr. 1-Apr. 30	10	.....	
Daviess County	Feb. 1-Apr. 30	10	1	
Dearborn County	Mar. 1-May 31	11	.....	
Dekalb County	Feb. 1-May 31	71	.....	
Delaware County (Muncie)	Mar. 1-Apr. 30	34	.....	
Dubois County	Feb. 1-May 31	35	1	
Elkhart County	.....do	12	.....	
Fayette County	Apr. 1-Apr. 30	9	.....	
Floyd County	May 1-May 31	3	.....	
Fulton County	Mar. 1-May 31	29	.....	
Hamilton County	Apr. 1-Apr. 30	5	.....	
Hancock County	May 1-May 31	4	.....	
Howard County	Mar. 1-May 31	30	.....	
Jefferson County	May 1-May 31	5	.....	
Knox County	.....do	7	.....	
Lake County	Feb. 1-May 31	64	.....	
Laporte County	Apr. 23-June 17	9	1	
Lawrence County	Mar. 1-May 31	135	.....	
Madison County	Apr. 1-May 31	20	.....	
Marion County (Indianapolis)	Feb. 1-May 31	88	2	
Monroe County	Feb. 1-Apr. 30	5	.....	
Newton County	.....do	3	.....	
Noble County	Mar. 1-Apr. 30	2	.....	
Ohio County	Feb. 1-Apr. 30	46	.....	
Parke County	Apr. 1-Apr. 30	1	.....	
Perry County	Feb. 1-May 31	13	.....	
Pike County	Feb. 1-Apr. 30	8	.....	
Posey County	Mar. 1-Apr. 30	6	.....	
Putnam County	Apr. 1-Apr. 30	1	.....	
Randolph County	Feb. 1-Apr. 30	1	.....	
Ripley County	Apr. 1-Apr. 30	5	.....	
St. Joseph County	Feb. 1-June 15	3	.....	
Steuben County	Mar. 1-Apr. 30	8	.....	
Switzerland County	Mar. 1-May 31	266	.....	
Tipton County	.....do	6	.....	
Union County	May 1-May 31	1	.....	
Vanderburg County (Evansville).	Feb. 24-June 22	28	.....	
Vermilion County	Mar. 1-Apr. 30	22	1	
Vigo County	Feb. 1-Apr. 30	2	.....	
Wabash County	.....do	4	.....	
Wayne County	.....do	1	.....	
Total for State	.....	1,070	7	
Indian Territory:				
Ardmore	Feb. 7	16	.....	
Chickasha	Jan. 1-Apr. 17	200	.....	
Coalgate	May 11	50	.....	
Ryon	Feb. 19	.....	.....	Several cases.
Total for Territory	.....	266	.....	
Iowa:				
Clinton	Mar. 24-June 15	6	.....	
Davenport	Feb. 1-May 31	32	.....	
Des Moines	Dec. 1-Dec. 31	3	.....	
Ottumwa	Jan. 6-June 1	25	.....	
Total for State	.....	66	.....	
Kansas:				
Allen County	May 1-May 31	23	.....	
Barber County	Mar. 1-Mar. 31	1	.....	
Barton County	.....do	10	.....	
Bourbon County	Dec. 1-Mar. 31	55	.....	
Butler County	.....do	2	.....	
Chase County	Mar. 1-Mar. 31	3	.....	
Chautauqua County	.....do	21	.....	
Cherokee County	Jan. 1-May 31	736	2	
Clay County	Feb. 1-May 31	17	.....	
Clark County	May 1-May 31	4	.....	
Crawford County	Dec. 1-Mar. 31	824	2	
Coffey County	Feb. 1-Mar. 31	94	.....	
Cowley County	.....do	5	.....	
Dickinson County	.....do	16	.....	
Douglas County	Dec. 1-May 31	43	.....	
Edwards County	Mar. 1-May 31	2	.....	
Ellis County	.....do	7	.....	
Franklin County	Dec. 1-Mar. 31	4	.....	
Graham County	Feb. 1-Mar. 3	28	.....	

Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Kansas—Continued.				
Greenwood County	Jan. 1–May 31	[illegible]	1	
Hamilton County	Feb. 1–Mar. [illegible]	[illegible]		
Kingman County	May 1–May 31	9		
Jewell County	Mar. 1–Mar. 31	[illegible]		
Johnson County	do	3		
Kingman County	do	[illegible]		
[illegible] County	Mar. 1–May 31	6		
Labette County	Dec. 1–May 31	[illegible]	1	
[illegible]	Jan. [illegible]–May 31	[illegible]	[illegible]	
[illegible]				
[illegible] County	Mar. 1–May 1	[illegible]		
[illegible] County	do	[illegible]		
Logan County	May 1–May [illegible]	[illegible]		
Lyon County	Mar. 1–May [illegible]	[illegible]		
Marshall County	do	[illegible]		
Marion County	Dec. 1–Mar. [illegible]	[illegible]		
Miami County	do	[illegible]		
Montgomery County	do	[illegible]		
Morton County	Mar. 1–Mar. 31	9		
Nemaha County	do	1		
[illegible] County	Feb. 1–May [illegible]	[illegible]		
[illegible] County	do	[illegible]	1	
[illegible] County	Jan. [illegible]–May [illegible]	[illegible]	[illegible]	
Osborne County	do	[illegible]		
Osage County	do	[illegible]	[illegible]	
[illegible] County	Feb. 1–Mar. [illegible]	[illegible]		
[illegible] County	do	[illegible]	[illegible]	
Do	May [illegible]–May [illegible]	[illegible]	[illegible]	
[illegible] County	do	[illegible]		
[illegible] County	Mar. [illegible]–May [illegible]	[illegible]		
[illegible] County	Dec. [illegible]–Mar. [illegible]		[illegible]	
[illegible] County	Mar. [illegible]–Mar. [illegible]	[illegible]		
[illegible] County	[illegible]–Mar. [illegible]	[illegible]		
[illegible] County	May [illegible]	[illegible]		
[illegible] County	Dec. [illegible]–Mar. [illegible]	[illegible]		
[illegible] County	Mar. [illegible]–Mar. [illegible]	[illegible]		
Sedgwick County, Wichita	Dec. [illegible]–June [illegible]	[illegible]	[illegible]	
[illegible] County	Mar. [illegible]–Mar. [illegible]	[illegible]		
Shawnee County, Topeka	Dec. 1–May [illegible]	[illegible]	[illegible]	
[illegible] County	do			
Smith County	[illegible]			
[illegible] County	[illegible]–Mar. [illegible]	[illegible]	[illegible]	
[illegible] County	Mar. [illegible]–Mar. [illegible]			
[illegible] County	Dec. 1–May [illegible]	[illegible]	[illegible]	
[illegible] County	Mar. [illegible]–May [illegible]	[illegible]		
Washington County	do	[illegible]		
[illegible] County	[illegible]–Mar. [illegible]	[illegible]		
[illegible] County	[illegible]–Mar. [illegible]	[illegible]		
[illegible] County, Kansas [illegible]	Dec. 1–Mar. [illegible]	[illegible]		
[illegible]				
[illegible] the State		[illegible]		
Total for the State		[illegible]	[illegible]	
Kentucky:				
[illegible]	Apr. [illegible]	[illegible]		
[illegible]	Dec. [illegible]–[illegible]	[illegible]		
[illegible]	Dec. [illegible]–Mar. [illegible]	[illegible]		
Total for the State		[illegible]		
Louisiana:				
Baton Rouge	Mar. [illegible]–Mar. [illegible]	[illegible]	[illegible]	
[illegible] Parish	Apr. [illegible]–May [illegible]	[illegible]		
[illegible]	do			
New Orleans	Dec. [illegible]–[illegible]	[illegible]	[illegible]	
[illegible]	Apr. [illegible]–Apr. [illegible]	[illegible]		
Shreveport	Dec. [illegible]	[illegible]		
Total for the State		[illegible]		
Maine:				
Bangor	Mar. [illegible]–June [illegible]	[illegible]		
[illegible]	do			
[illegible]	do			
[illegible]	do	[illegible]		
Portland	Mar. [illegible]–[illegible]			
Waterville	May [illegible]–June [illegible]			
Total for the State		[illegible]		

Smallpox in the United States as reported to the Surgeon-General United States Marine Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Maryland:				
Baltimore	Dec. 16–June 8	13	.....	
Cumberland	Feb. 1–May 31	24	.....	
Total for State	.....	37	.....	
Massachusetts:				
Boston	Mar. 24–June 8	16	1	
Fall River	June 8–June 22	8	.....	
Fitchburg	Apr. 13–May 24	7	1	
Holyoke	Apr. 21–May 4	2	.....	
Lawrence	Jan. 13–Feb. 2	4	.....	
Lowell	Mar. 3–Mar. 9	1	.....	
Marlboro	May 25–June 8	2	.....	
New Bedford	May 8–June 22	37	2	1 case on schooner D. Story; 27 cases and death on schoon Zulamira, Brava, Ca Verde Islands, June
Worcester	June 7–June 14	8	2	
Oxford	Oct. 22	2	.....	
Quincy	June 1	1	.....	
Somerville	Mar. 3–June 8	3	.....	
Springfield	Jan. 6–Mar. 23	2	.....	
Total for State	.....	93	6	
Michigan	Dec. 30–Apr. 27	.....	.....	Smallpox present in places in Michigan d ing the week end June 15, 1901.
Alger County	Feb. 17–Feb. 23	.....	.....	Present.
Bay County (Bay City)	Mar. 17–May 31	16	.....	
Calhoun County	May 11	.....	.....	Do.
Charlevoix County	Feb. 17–Feb. 23	.....	.....	Do.
Chippewa County	May 4	.....	.....	Do.
Clare County	Feb. 17–May 11	.....	.....	Do.
Eaton County	May 4	.....	.....	Do.
Gladwin County	May 11	.....	.....	Do.
Grand Rapids	Dec. 30–May 11	12	.....	
Grand Traverse County	May 11	.....	.....	Do.
Gratiot County	May 31	.....	2	
Isabella County	Feb. 17–May 11	.....	.....	Do.
Kent County	June 1	2	.....	
Luce County	May 4–May 11	.....	.....	Do.
Mackinac County	do	.....	.....	Do.
Manistee	Jan. 20–Feb. 16	11	.....	
Mason County	Feb. 17–Mar. 2	.....	.....	Do.
Midland County	May 4–May 11	.....	.....	Do.
Missaukee County	do	.....	.....	Do.
Montcalm County	do	.....	.....	Do.
Muskegon County	do	.....	.....	Do.
Newaygo County	do	.....	.....	Do.
Osceola County	May 4–May 31	.....	1	
Saginaw County	May 4	.....	.....	Do.
Schoolcraft County	Feb. 24–Mar. 2	.....	.....	Do.
St. Clair County	May 4–May 11	.....	.....	Do.
Shiawassee County	do	.....	.....	Do.
Tuscola County	May 11	.....	.....	Do.
Van Buren County	May 4–May 11	.....	.....	Do.
Wayne County (Detroit)	Mar. 3–June 22	332	1	
West Bay City	Feb. 10–June 8	14	.....	
Total for State, reported	.....	387	7	Three deaths reported State, places not name
Minnesota:				
Aitkin County	Jan. 1–Apr. 22	29	.....	
Anoka County	Jan. 15–May 20	96	.....	
Becker County	Apr. 22–May 20	4	.....	
Beltrami County	Jan. 15–June 17	173	.....	
Benton County	Dec. 14–June 17	35	.....	
Big Stone County	Jan. 1–June 17	52	.....	
Blue Earth	Jan. 28–May 20	98	.....	
Brown County	Dec. 14–June 17	96	.....	
Carlton County	do	40	.....	
Carver County	Jan. 1–June 17	54	.....	
Cass County	Dec. 14–June 17	80	.....	
Chippewa County	Jan. 15–June 1	34	2	
Chisago County	Jan. —June 17	46	.....	
Clay County	Jan. 28–Apr. 8	11	.....	
Cottonwood County	Dec. 14–June 3	10	.....	
Crow Wing County	Dec. 14–June 17	100	.....	

[illegible] in the United States as reported to the Surgeon-General United States Marine-Hospital Service, December [illegible], 1[illegible], to June [illegible], 1[illegible]—Continued.

Places	Date	Cases	Deaths	Remarks
[illegible]—Continued				
Dakota County	Dec. 16-June 17	[illegible]	[illegible]	
Dodge County	do	[illegible]		
Douglas County	Apr. 22-June 1	[illegible]		
Fairbault County	Jan. [illegible]-June 17	[illegible]		
Fillmore County	Apr. 22-June 17	[illegible]		
[illegible] County	Jan. 1[illegible]-June 17	[illegible]	1	
[illegible] County	Jan. 1[illegible]-Apr. [illegible]	[illegible]		
[illegible] County	Dec. 16-Apr. [illegible]	[illegible]		
[illegible] County, Minn.	Dec. 16-June 1[illegible]	[illegible]	1	
[illegible] County	Jan. 1[illegible]-June 3	41		
[illegible] County	Dec. 16-Apr. [illegible]	[illegible]	1	
[illegible] County	Jan. [illegible]-May [illegible]	[illegible]		
[illegible] County	June 17	79		
[illegible] County	Jan. 1[illegible]-June 17	[illegible]		
[illegible] County	Jan. [illegible]-June 17	[illegible]		
[illegible] County	Dec. 16-Apr. [illegible]	[illegible]		
[illegible] County	June 3	3		
[illegible]	Apr. [illegible]-June 17	[illegible]		
[illegible] County	Jan. 1-June 1	[illegible]		
[illegible] County	Dec. 16-June 17	[illegible]		
[illegible] County	Apr. [illegible]-May [illegible]	[illegible]		
[illegible] County	Dec. 16-June 1	[illegible]	2	
[illegible] County	Jan. 1-June [illegible]	[illegible]		
[illegible] County	Jan. 1-May [illegible]	[illegible]		
[illegible] County	Jan. 1-June [illegible]	[illegible]		
[illegible] County	Dec. 16-June 17	[illegible]		
[illegible] County	Jan. [illegible]-June 17	[illegible]		
[illegible] County	Jan. [illegible]-June 17	[illegible]		
[illegible] County	Apr. [illegible]-June 17	[illegible]		
[illegible] County	Dec. 16-June 17	[illegible]		
[illegible] County	Jan. 1-June 1	[illegible]		
[illegible] County	Dec. 16-Apr. [illegible]	[illegible]		
[illegible] County	Apr. [illegible]-June 17	[illegible]		
[illegible] County	Jan. 1-June 17	[illegible]	1	
[illegible] County	Dec. 16-June 3	[illegible]		
[illegible] County	Jan. 1-June 17	[illegible]		
[illegible] County	Apr. [illegible]-June 17	[illegible]		
[illegible]	Dec. 16-June [illegible]	[illegible]		
[illegible] County	Jan. [illegible]-June [illegible]	[illegible]		
[illegible] County	Jan. 1-June 17	[illegible]		
[illegible] County	Jan. 1-June 17	[illegible]		
[illegible] County	Jan. [illegible]-June 17	[illegible]		
[illegible] County	Apr. [illegible]-May 30	[illegible]		
[illegible]	[illegible]-June [illegible]	[illegible]		
[illegible]	Jan. [illegible]-June 17	[illegible]		
[illegible] County	Apr. 22-June [illegible]	[illegible]		
[illegible]	do	[illegible]		
[illegible] County	Jan. [illegible]-June [illegible]	[illegible]		
[illegible] County	Jan. 1-June 3	[illegible]		
[illegible] County	Jan. [illegible]-June 17	[illegible]		
[illegible]	Dec. 16-June 8	[illegible]		
[illegible] County	Jan. [illegible]-May 30	[illegible]		
[illegible] County	Dec. 16-May 30	[illegible]		
[illegible] County	Jan. [illegible]-May 30	[illegible]		
[illegible] County	Jan. [illegible]-June 17	[illegible]		
[illegible] County	Jan. 1-June [illegible]	[illegible]		
[illegible] County	Jan. 1-May [illegible]	[illegible]		
[illegible] County	Jan. [illegible]-June [illegible]	[illegible]		
[illegible] County	Jan. [illegible]-Apr. [illegible]	[illegible]		
[illegible] County	Jan. [illegible]-June [illegible]	[illegible]		
[illegible] County, Wis.	Dec. [illegible]-June [illegible]	[illegible]		
Wright County	Jan. 1-May [illegible]	[illegible]		
[illegible] Multiple [illegible]	Jan. [illegible]-June [illegible]	[illegible]		
Other places		[illegible]		
Total for State		[illegible]		
[illegible]				
[illegible]	Dec. [illegible]-Dec. [illegible]	[illegible]		
[illegible]				
[illegible]	Jan. 1-June 6	[illegible]		
do [illegible]	Jan. [illegible]-Jan. 11	[illegible]		
do [illegible]	Dec. [illegible]-June 16	[illegible]	[illegible]	
Total for State		[illegible]	6	

Smallpox in the United States as reported to the Surgeon-General United States Marine Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Montana:				
Butte	Dec. 20-Jan. 20	218	2	
Nebraska:				
Columbus	Mar. 1			Present.
Decatur and vicinity	Apr. 1-Dec. 14	451	4	
Lincoln	Mar. 1			Do.
Nebraska City	Jan. 1-May 18	26		
Omaha	Dec. 23-June 15	213		
South Omaha	Dec. 28-May 31	128		
Total for State		818	4	
Nevada:				
Virginia City	Jan. 9	1		
New Hampshire:				
Manchester	Dec. 17-June 15	376		26 cases, month of May.
New Jersey				286 cases, Jan. 1 to June
Camden	May 5-May 25	2		
Jersey City	Dec. 17-June 15	52		
Essex County (Newark)	Feb. 10-June 22	41	4	
Hudson County	Mar. 21-Mar. 31	12	1	
Passaic County	May 25	1		
Patterson	Apr. 1-Apr. 31	13		
Plainfield	June 15	1		
Total for State		122	5	
New Mexico:				
Fort Stanton	Jan. 14-Feb. 28	4		
New York:				
Buffalo	June 20	1		
Elmira	Feb. 24-Mar. 9	2		
New York	Dec. 16-June 22	1,376	235	
Utica	Jan. 13-Jan. 26	2		
Yonkers	Feb. 23-Mar. 1	1		
Total for State		1,382	235	
North Carolina:				
Alamance County	Jan. 1-Mar. 31	3		
Alexander County	Nov. 1-Mar. 31	3		
Buncombe County	Dec. 1-Mar. 31	13		
Cabarrus County	Jan. 1-Mar. 31	8		
Caswell County	Nov. 1-Mar. 31	114	2	
Chatham County	Jan. 1-Mar. 31	5		
Cleveland County	To Mar. 31	12		
Cumberland County	Jan. 1-Mar. 31	6		
Currituck County	do	6		
Davidson County	To Mar. 31	39		
Durham County	do	45		
Forsyth County	Dec. 1-Mar. 31	8		
Franklin County	do	1		
Gaston County	To Mar. 31	21		
Granville County	Dec. 1-Mar. 31	21		
Greene County	Jan. 1-Mar. 31	194		
Guilford County	Jan. 1-Mar. 31	7		
Halifax County	To Mar. 31	14		
Harnett County	Jan. 1-Mar. 31			A few cases.
Henderson County	Nov. 1-Mar. 31			A few deaths.
Lincoln County	Jan. 1-Mar. 31	2		
Mecklenburg County	Jan. 1-May 31	56	2	
Nash County	Jan. 1-Mar. 31	56		
Orange County	To Mar. 31	34		
Pamlico County	Dec. 1-Mar. 31	3		
Pasquotank County	Jan. 1-Mar. 31	15		
Person County	Nov. 1-Mar. 31	20		
Pitt County	To Mar. 31	7		
Polk County	do	3		
Richmond County	Nov. 1-Mar. 31	1		
Robeson County	To Mar. 31	38		
Rockingham County	Dec. 1-Mar. 31	23		
Transylvania County	Nov. 1-Mar. 31	5		
Vance County	Dec. 1-Mar. 31	1		
Wake County	Nov. 1-Mar. 31	19		
Watauga County	Jan. 1-Mar. 31	10		
Wayne County	To Mar. 31	2		
Wilkes County	Nov. 1-Mar. 31	3		

Smallpox in the United States as reported to the Surgeon-General United States Marine-Hospital Service, December 29, 1900, to June 28, 1901.—Continued.

Place	Date	Cases	Deaths	Remarks
North Carolina—Continued.				
Wilson County	Jan. 1–Mar. 31	18	.....	
Yancey County	....do	9	.....	
Total for state		[illegible]	4	
North Dakota.				
Dunseith	Jan. 30	1		
Burleigh County	Mar. 12	[illegible]		
Jamestown	Jan. 7	1		
Minnewaukan	Jan. 15	1		
Morton County	Jan. 25–Mar. 12	[illegible]		
Richland County	Mar. 12	1		
Walsh County	....do	4	1	
Total for state		[illegible]	1	
Ohio.				
Adams County	Jan. 1–Mar. 31	[illegible]	[illegible]	
Allen County	....do	1		
Ashland County	....do	4		
Ashtabula County	....do	[illegible]		
Athens County	....do	[illegible]		
Belmont County	....do	[illegible]		
Brown County	....do	[illegible]		
Carroll County	....do	[illegible]		
Champaign County	....do	[illegible]	[illegible]	
Columbiana County	....do	[illegible]		
Cuyahoga County (Cleveland)	Jan. 1–June [illegible]	[illegible]		
Defiance County	Jan. 1–Mar. [illegible]	[illegible]		
Delaware County	....do	[illegible]		
Erie County	....do	[illegible]		
Fairfield County	....do	[illegible]		
Franklin County	....do	[illegible]		
Gallia County	....do	[illegible]		
Geauga County	....do	[illegible]		
Greene County	....do	[illegible]		
Guernsey County	....do	[illegible]		
Hamilton County (Cincinnati)	Jan. 1–June [illegible]	[illegible]		
Hancock County	Jan. 1–Mar. [illegible]	[illegible]		
Harrison County	....do	[illegible]		
Henry County	....do	[illegible]		
Hocking County	....do	[illegible]	[illegible]	
Huron County	....do	[illegible]		
Jackson County	....do	[illegible]		
Jefferson County	....do	[illegible]		
Lawrence County	....do	[illegible]		
Licking County	....do	[illegible]	[illegible]	
Lorain County	Jan. 1–June [illegible]	[illegible]		
Mahoning County	Jan. 1–May [illegible]	[illegible]		
Marion County	....do	[illegible]		
Montgomery County	June [illegible]	[illegible]		
Paulding County	Jan. 1–Mar. [illegible]	[illegible]		
Perry County	....do	[illegible]		
Pike County	....do	[illegible]		
Putnam County	....do	[illegible]		
Richland County	....do	[illegible]		
Scioto County (Portsmouth)	....do	[illegible]		
Seneca County	....do	[illegible]		
Trumbull County	....do	[illegible]		
Tuscarawas County	....do	[illegible]		
Van Wert County	....do	[illegible]		
Vinton County	....do	[illegible]		
Williams County	....do	[illegible]		
Wyandot County	....do	[illegible]		
Unassigned	Mar. [illegible]	[illegible]		
Total for state		[illegible]	[illegible]	
Oklahoma.				
Reports from fifteen counties	Jan. 1–June [illegible]	[illegible]		
Pottawatomie County	Jan. 1	[illegible]		
Cleveland County	....do	[illegible]		
Day County	....do	[illegible]		
Garfield County	....do	[illegible]		
Grant County	....do	[illegible]		
Kingfisher County	....do	[illegible]		
Lincoln County	....do	[illegible]		
Logan County	....do	[illegible]		

Smallpox in the United States as reported to the Surgeon-General United States Marine Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Oklahoma—Continued.				
Noble County	Jan. 1	12		
Oklahoma County	do	43		
Pawnee County	do	5		
Payne County	do	12		
Pottawatomie County	do	25		
Roger Mills County	do	50		
Washita County	do	40		
Woodward County	do	1		
Total for Territory		690		
Oregon:				
Portland	Jan. 4–June 5	42		
Pennsylvania:				
Philadelphia	Jan. 6–June 22	57	7	
Allegheny County	Dec. 1–June 21	99	3	
Armstrong County	June 21	1		
Bedford County	Apr. 1–Apr. 30	25		
Blair County	do	2		
Butler County	Mar. 1–Mar. 31	2		
Clearfield County	Feb. 1–Mar. 31	1		
Cumberland County	Apr. 1–June 21	14		
Dauphin County	Feb. 1–May 18	190		
Erie County	Feb. 1–May 25	31		
Fayette County	do	3		
Franklin County	Mar. 1–June 21	14	1	
Greene County	Feb. 1–Mar. 31	2		
Lancaster County	Mar. 1–Mar. 31	1		
Lawrence County	Apr. 1–Apr. 30	1		
Lebanon County	Apr. 13–June 22	49		
Lycoming County	Feb. 1–May 25	43		
Luzerne County	June 21	14		
McKean County	Mar. 1–June 21	9		
Mercer County	Apr. 1–June 17	13		
Perry County	Apr. 1–June 21	17		
Sullivan County	June 21	8		
Tioga County	Apr. 1–June 21	8		
Warren County	Mar. 1–Mar. 31	1		
Washington County	Feb. 1–Mar. 31	11		
Westmoreland County	Mar. 1–June 21	13		
York County	Mar. 1–Mar. 31	10		
Total for State		639	11	
Rhode Island:				
Central Falls	Dec. 26–Mar. 15	5	1	
Coventry	May 30	1		
Evanston	do	8		
Providence	June 1–June 22	5	2	
River Point (Warwick)	Mar. 10–June 11	8		
Total for State		27	3	
South Carolina:				
Blacksburg	Feb. 5	3		
Charleston	Apr. 2			A few cases.
Georgetown (vicinity)	Apr. 27			Present.
Greenville	Dec. 23–Mar. 16	7	1	
Total for State		10	1	
Tennessee:				
Anderson County	Oct. 1–Apr. 1	65		
Bedford County	do	9		
Blount County	do	13		
Bradley County	do	31	1	
Campbell County	do	65	1	
Cannon County	do	9		
Carroll County	do	131	2	
Cheatham County	do	29	1	
Chester County	do	16	1	
Claiborne County	do	9		
Cocke County	do	60		
Coffee County	do	101		
Crockett County	do	100	1	
Cumberland County	do	6		
Davidson County (Nashville)	Oct. 1–June 15	266	2	
Decatur County	Oct. 1–Apr. 1	165		
Dickson County	do	43	1	

[illegible] in the United States as reported to the Surgeon-General United States Marine-Hospital Service December [illegible], to June [illegible]—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Smallpox in the United States as reported to the Surgeon-General United States Marine Hospital Service, December 29, 1900, to June 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Virginia—Continued:				
Buckingham County	Feb. 4			Present.
Campbell County	do			Do.
Carroll County	do			Do.
Chesterfield County	do			Do.
Craig County	do			Do.
Floyd County	do			Do.
Fluvanna County	do			Do.
Goochland County	do			Do.
Greenesville County	do			Do.
Halifax County	do			Do.
King George County	do			Do.
Lee County	do			Do.
Louisa County	do			Do.
Middlesex County	do			Do.
Nelson County	do			Do.
Orange County	do			Do.
Page County	do			Do.
Pittsylvania County	Dec. 31	200		Do.
Richmond	Jan. 7	4		
Roanoke County	Jan. 1-May 21	182	5	
Rockbridge County	Jan. 1-Mar. 31			
Rockingham County	do			Do.
Alexandria	Dec. 29-Feb. 9	5		Do.
Total for State		392	5	
Washington:				
Aberdeen	May 21	4		
Hoquiam	June 10	1		
Port Townsend	May 25	5		
Seattle	Dec. 1-May 31	62		On steamship Senator.
Tacoma	Dec. 9-June 2	12		
Total for State		84		
West Virginia:				
Huntington	Feb. 17-May 24	91		
Wheeling	Dec. 16-June 15	37	1	
Total for State		128	1	
Wisconsin:				
All over the State	Dec. 12-Dec. 31	99	1	
Ashland County	Jan. 1-Feb. 28	15		
Barron County	do	5		
Bayfield County	do	5		
Brown County	Dec. 12-June 15	23		
Buffalo County	Feb. 1-Feb. 28	11		
Chippewa County	Jan. 1-Feb. 28	16		
Clark County	do	4		
Columbia County	do	1		
Crawford County	Feb. 1-Feb. 28	1		
Dane County	Jan. 1-Feb. 28	2		
Douglas County	Jan. 1-May 4	102		
Dunn County	Jan. 1-Feb. 28	12		
Eau Claire County	do	36		
Fond du Lac County	May 12-May 18	1		
Forest County	Jan. 1-Feb. 28	7		
Grant County	do	7		
Iowa County	Feb. 1-Feb. 28	28	1	
Iron County	Jan. 1-Feb. 28	2		
Jefferson County	do	4		
La Crosse County	do	23		
Lafayette County	Feb. 1-Feb. 28	4		
Langlade County	Jan. 1-Feb. 28	71		
Lincoln County	do	1		
Marathon County	Jan. 1-May 4	18		
Marinette County	Feb. 1-Feb. 28	5		
Manitowoc County	do	1		
Marquette County	Jan. 1-Feb. 28	4		
Milwaukee County (Milwaukee).	Jan. 20-June 16	22	1	
Monroe County	Feb. 1-Feb. 28	2	1	
Oneida County	do	3		
Outagamie County	do	8		
Portage County	Jan. 1-Feb. 28	9		
Price County	do	3	1	
Racine County	do	3		
Rock County	do	7		
St. Croix County	do	3		
Shawano County	Jan. 1-May 4	3		

[illegible] the United States as reported to the Surgeon-General, United States Marine-Hospital Service, December [illegible] to January [illegible]—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
[illegible]				
[illegible]	Jan. [illegible]-Feb. [illegible]	[illegible]		
[illegible]	do	[illegible]		
[illegible]	do	[illegible]		
[illegible]	Feb. [illegible]-May [illegible]	[illegible]		
[illegible]	Jan. [illegible]-Feb. [illegible]			
[illegible]	do	[illegible]		
[illegible]	Feb. [illegible]-Feb. [illegible]	[illegible]		
[illegible]	Jan. [illegible]-Feb. [illegible]			
Total [illegible]		[illegible]		
[illegible]				
[illegible]	Jan. [illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]			
Total [illegible]		[illegible]		
[illegible]				

FOREIGN AND INSULAR.

The reports from United States consuls in foreign countries are [illegible] more regular and more numerous.

[illegible]

[illegible] has been reported present in the following places: Argentina, Buenos Ayres; China, Hongkong; India, Bombay, Calcutta, Karachi and Madras; Russia, Novorossisk, and Straits Settlements, Singapore.

Nearly all the cases and deaths reported occurred [illegible] Bombay.

From May [illegible], 1900, to May 21, [illegible] there were [illegible] deaths [illegible] Bombay [illegible] and the majority of these [illegible] were reported from May [illegible] to November 20, 1900.

[illegible]

Cholera, as reported to the Surgeon-General United States Marine-Hospital Service—Con.

DECEMBER 29, 1900, TO JUNE 28, 1901.

Places.	Date.	Cases.	Deaths.	Remaks.
Argentina:				
Buenos Ayres	Feb. 1-Feb. 28	2	.....	
China:				
Hongkong	Mar. 9	.....	7	
India:				
Bombay	Nov. 21-May 21	.....	108	
Calcutta	Nov. 18-May 18	.....	1,059	
Madras	Nov. 11-May 17	.....	123	
Straits Settlements:				
Singapore	Nov. 8-Mar. 2	.....	272	

YELLOW FEVER.

Yellow fever was reported in Brazil, Colombia, Costa Rica, Cuba, France (on steamship at Havre), Haiti, Jamaica, Mexico, Salvador, Santo Domingo, and West Africa.

Brazil, Cuba, and Mexico furnished a very large majority of the cases. In Cuba from July 1 to December 31, 1900, there were 1,279 cases with 298 deaths, a mortality of 23.3 per cent; from January 1 to June 30, 114 cases with 39 deaths, a mortality of 34.2 per cent.

Yellow fever as reported to the Surgeon-General United States Marine-Hospital Service.

JUNE 29, 1900, TO DECEMBER 28, 1900.

[Reports received from United States consuls through the Department of State and from other sources.]

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Avare	Feb. 1-Feb. 28	.....	1	
Bahia	June 3-June 9	2	.....	
Casa Branca	Feb. 1-July 31	.....	8	
Itu	....do	.....	2	
Pedreiras	....do	.....	1	
Rio de Janeiro	May 12-Oct. 31	.....	73	
Saboticabal	Mar. 1-Mar. 31	.....	1	
Sao Paulo	Feb. 1-July 31	.....	46	
Santos	....do	.....	112	
Sao Bernardo	Mar. 1-June 30	.....	8	
Sorocaba	....do	.....	633	
Colombia:				
Barranquilla	June 3-Oct. 21	72	39	
Bocas del Toro	July 25-Sept. 11	5	3	
	Oct. 22-Nov. 17	5	.....	
Cartagena	June 1-July 14	28	27	
	Sept. 1-Sept. 14	3	3	
	Oct. 29-Nov. 4	1	1	
Panama	June 12-Sept. 10	27	6	
Costa Rica:				
Port Limon	Aug. 18-Aug. 22	2	1	On steamship Holstein; 1 on steamship Canada.
	Oct. 31 Nov. 1	2	1	One on steamship Adler.
Cuba.				
Batabano	Aug. 16-Aug. 22	.....	1	
	Dec. 3	1	.....	
Cienfuegos	July 21	1	.....	Among United States soldiers.
	Aug. 14-Sept. 22	5	3	
	Dec. 23	1	.....	
Gibara	Oct. 13-Oct. 16	.....	1	On steamship Julia.
Guanajay	June 30	.....	1	
Havana	June 1-June 30	17	6	
	July 1-Aug. 1	96	30	
	Aug. 1-Aug. 31	254	49	
	Sept. 1-Sept. 30	358	52	
	Oct. 1-Oct. 31	308	74	
	Nov. 1-Nov. 30	214	54	
	Dec. 1-Dec. 15	.....	12	
Matanzas	Nov. 7-Dec. 18	7	.....	Two in barracks.
Neuvitas	Nov. 25	1	.....	
Pinar del Rio	July 21-July 30	.....	14	

Yellow fever, as reported to the Surgeon-General United States Marine Hospital Service. Con.

JUNE 30 1900 TO DECEMBER 31, 1900 continued

Places	Date	Cases	Deaths	Remarks
[illegible]				
Puerto Padre	Dec 3	1		On steamship [illegible]
[illegible]	Sept 17 Sept 21	2	1	
	Nov 2	1		
[illegible]	June 30 July 22	12		
Panama				
[illegible]	Aug 9	1		On steamship Caravallas
	Aug 10	1		On steamship Santa Fe
Mexico				
City of Mexico	May 7 May 11		1	
	Oct 6 Nov 25			
[illegible]	July 1			Yellow fever reported
Merida	July 21	7	4	
Progreso	June 26 Sept 30		2	
Tampico	July 28 Nov 2[illegible]		17	
Vera Cruz	Sept 2 Dec 16		11[illegible]	
Santo Domingo				
Puerto Plata	Oct 6 Nov 27	[illegible]	[illegible]	
West Africa				
[illegible] Dakar	Apr 16 June 30	[illegible]	[illegible]	
Rufisque	June 16 June 30			[illegible]

YELLOW FEVER DECEMBER 31 AS REPORTED [illegible]

Brazil				
Pernambuco	Dec 10 Apr 15		11	
Rio de Janeiro	Nov 1 Apr 30		106	
Colombia				
Barranquilla	Apr 1			[illegible]
Cartagena	Dec [illegible] 6		[illegible]	
Mamda	Jan [illegible]			[illegible]
[illegible]	1			[illegible]
Costa Rica				
Alajuela	June [illegible]	1		
Liberia	May 2			1[illegible]
Port Limon	Apr [illegible]	[illegible]		
Cuba				
[illegible]	Jan [illegible] Mar 6	[illegible]	[illegible]	
Havana	Dec [illegible] Dec [illegible]	[illegible]	[illegible]	
	Jan 1 Jan [illegible]	1	[illegible]	
	Dec 1 Dec [illegible]	[illegible]	[illegible]	
	Mar [illegible] Mar [illegible]	1		
	Apr 2 Apr 2[illegible]			
	Apr [illegible] Mar [illegible]			
	Ma[illegible]			[illegible] Massachusetts [illegible]
	June [illegible]			
Matanzas	Dec [illegible] Ja[illegible]			
Mexico				
Cape Mexico	Mar [illegible] Mar [illegible]			
Jamaica				
Kingston	June [illegible]			
Port Royal	Apr [illegible]			[illegible]
Mexico				
City of Mexico	Jan 28 Dec [illegible]			
[illegible]	Apr 1[illegible]			[illegible]
Vera Cruz	Dec 16 Mar [illegible]			
Nicaragua				
[illegible]	Mar [illegible]	[illegible]		

PLAGUE

This disease during the year has been reported in the following countries:

Africa, Cape Colony and Egypt, Arabia, Argentina, Australia, Brazil, China, England, Formosa, Germany, Hawaiian Islands, India, Japan, Madagascar, Mauritius, Paraguay, Philippine Islands, Portugal, Reunion, Russia, Scotland, Straits Settlements, Turkey, and Wales; probably a wider dissemination than has ever been known in the history of the world.

The large majority of the cases have occurred in India—more th in all the rest of the world combined. From April 29 to Novembe 1900, 28,865 cases were reported, with 21,954 deaths. During the n six months—from November 4, 1900, to May 11, 1901—there w 506,395 cases, with 446,923 deaths, or for the period from April 1900, to May 11, 1901, there were 535,260 cases and 468,877 deaths.

These figures are only approximately correct, as no doubt ma cases are not reported.

Plague, as reported to the Surgeon-General United States Marine-Hospital Service.

JUNE 29, 1900, to DECEMBER 28, 1900.

[Reports received from United States consuls through the Department of State and from o sources.]

Places.	Date.	Cases.	Deaths.	Remarks.
Africa:				
Cape Colony, King Williams Town	Nov. 16	8	3	
Arabia:				
Aden	Feb. 22–July 3	714	575	
Djiddah	Apr. 26–June 28	.....	78	
Yambo	Apr. 10–June 13	.....	67	
Argentina:				
Buenos Ayres	May 1–May 31	5	5	
Australia:				
Adelaide	Apr. 1–Aug. 11	6	3	
Brisbane	Aug. 1–Aug. 31	.....	3	
Chartus Towers	Sept. 29	1		
Sydney	Jan. 24–Aug. 25	303	103	
Brazil:				
Campo Grande	June 16	2	.....	
Nictheroy	do	2	.....	
Petropolis	Dec. 10	.....	1	
Rio de Janeiro	Apr. 18–Sept. 30	485	243	
	Oct. 1–Oct. 31	33	20	
China:				
Amoy	May 27–Sept. 1	.....	1,445	Estimated.
Hongkong	Jan. 1–Oct. 27	1,084	1,019	
Egypt:				
Port Said	Apr. 20–Aug. 3	94	38	
Alexandria	May 16–Oct. 16	34	23	
	Nov. 11	2	1	
England:				
London	Aug. 3	4	2	
Formosa	Apr. 1–May 31	640	458	
	June 1–July 31	203	165	
Tamsui	Aug. 1–Aug. 31	4	3	
Germany:				
Bremen	Sept. 27–Nov. 5	1	1	On a steamship from Bue Ayres.
India:				
Bombay Presidency and Sind:				
Ahmedabad city	Apr. 29–Nov. 3	22	21	
Ahmednagar district	do	15	11	
Aundh state	do	7	6	
Belgaum district	do	2,664	1,671	
Bombay city	do	3,622	2,490	
Dharwar district and town.	do	653	494	
Nasik district	do	1,120	965	
Poona city	do	3,619	2,986	
Poona district	do	234	177	
Satara district	do	43	30	
Satara town	do	11	4	
Surat district	do	181	44	
Surat town	do	6	6	
Thana district	do	817	700	
Belgaum town	do	552	416	
Kanara district	do	59	56	
Kolaba district	do	76	46	
Ratnagiri district	do	22	18	
Savantvadi state	do	.....	3	
Hyderabad town	do	3	3	
Karachi city	do	.....	472	
Baroda state	do	.....	3	
Cutch state	do	413	239	
Mandir town	do	112	97	
Khandish	do	3	1	
Kathiawar state	do	177	111	

Plague, as reported to the Surgeon-General United States Marine Hospital Service—Continued.

JUNE 30, 1899, TO DECEMBER 31, 1899—Continued.

Place	Date	Cases	Deaths	Remarks
India—continued.				
Bombay Presidency and sind—continued.				
Bhavnagar town	Apr. 29-Nov. 3	[illegible]	[illegible]	
Kathiawar and southern Mahratta country	[illegible]	[illegible]	[illegible]	
Surat state	[illegible]	[illegible]	[illegible]	
Baroda state	[illegible]	[illegible]	[illegible]	
Jaora state	[illegible]	[illegible]	[illegible]	
Outside Bombay Presidency and sind.				
Madras city	[illegible]	[illegible]	[illegible]	
Salem district	[illegible]	[illegible]	[illegible]	
Tinnevelly district	[illegible]	[illegible]	[illegible]	
Bellary district	[illegible]	[illegible]	[illegible]	
Chingleput district	[illegible]	[illegible]	[illegible]	
Trichinopoly district	[illegible]	[illegible]	[illegible]	
North Arcot district	[illegible]	[illegible]	[illegible]	
Calcutta	[illegible]	[illegible]	[illegible]	
Backergunge district	[illegible]	[illegible]	[illegible]	
Midnapore district	[illegible]	[illegible]	[illegible]	
Cuttack district	[illegible]	[illegible]	[illegible]	
Hooghly district	[illegible]	[illegible]	[illegible]	
Howrah town	[illegible]	[illegible]	[illegible]	
24 Pergunnas district	[illegible]	[illegible]	[illegible]	
Hooghly district	[illegible]	[illegible]	[illegible]	
Hooghly town	[illegible]	[illegible]	[illegible]	
Sarun district	[illegible]	[illegible]	[illegible]	
Chapra town	[illegible]	[illegible]	[illegible]	
Patna district	[illegible]	[illegible]	[illegible]	
Patna city	[illegible]	[illegible]	[illegible]	
Dinapore town	[illegible]	[illegible]	[illegible]	
Bankipore town	[illegible]	[illegible]	[illegible]	
Gaya district	[illegible]	[illegible]	[illegible]	
Jubbulpore district	[illegible]	[illegible]	[illegible]	
Hoshangabad district	[illegible]	[illegible]	[illegible]	
Nagpur city	[illegible]	[illegible]	[illegible]	
Nagpur district	[illegible]	[illegible]	[illegible]	
Bangalore district and Mysore state and city	[illegible]	[illegible]	[illegible]	
Mysore city	[illegible]	[illegible]	[illegible]	
Mysore district	[illegible]	[illegible]	[illegible]	
Kolar district	[illegible]	[illegible]	[illegible]	
Tumkur district	[illegible]	[illegible]	[illegible]	
Chingleput district	[illegible]	[illegible]	[illegible]	
Tanjore district	[illegible]	[illegible]	[illegible]	
Trichinopoly district	[illegible]	[illegible]	[illegible]	
Japan				
Kobe	[illegible]	[illegible]	[illegible]	
Nagasaki	[illegible]	[illegible]	[illegible]	
Osaka	[illegible]	[illegible]	[illegible]	
Yokohama	[illegible]	[illegible]	[illegible]	
Madagascar	[illegible]	[illegible]	[illegible]	
Tamatave	[illegible]	[illegible]	[illegible]	
Mauritius				
Port Louis	[illegible]	[illegible]	[illegible]	
Portugal				
Lisbon	[illegible]	[illegible]	[illegible]	
Spanish Islands				
Manila	[illegible]	[illegible]	[illegible]	
Manila	[illegible]	[illegible]	[illegible]	
Manila	[illegible]	[illegible]	[illegible]	
Russia				
Odessa	[illegible]	[illegible]	[illegible]	
Odessa	[illegible]	[illegible]	[illegible]	
Straits Settlements				
Penang	[illegible]	[illegible]	[illegible]	
Turkey				
Beirut	[illegible]	[illegible]	[illegible]	
Constantinople	[illegible]	[illegible]	[illegible]	
Smyrna	[illegible]	[illegible]	[illegible]	
Hawaii				
Honolulu	[illegible]	[illegible]	[illegible]	

Plague, as reported to the Surgeon-General United States Marine-Hospital Service—C

DECEMBER 29, 1900, TO JUNE 28, 1901.

Places.	Date.	Cases.	Deaths.	Remarks.
Africa:				
Cape Town	Feb. 16-June 8	700	326	
Argentina:				
Buenos Ayres	Dec. 1-Feb. 28	3	1	
Australia:				
Adelaide	Feb. 28	1	.....	
Brisbane	Mar. 4	2	.....	
Sydney	do	1	1	On transport Antillion.
Brazil:				
Nictheroy	Dec. 6-Jan. 10	12	8	
Rio de Janeiro	Nov. 1-Feb. 28	.....	44	
Petropolis	Nov. 12-Feb. 9	6	3	
China:				
Amoy	Apr. 30	.....	.....	Reported.
Canton	Mar. 1-May 22	.....	.....	Prevailing.
Chan Tsin	Feb. 14-Feb. 28	.....	280	
Fatshan	Feb. 28	.....	.....	Prevalent.
Hongkong	Jan. 1-May 11	411	372	
Lam Ko District	Feb. 14-Mar. 26	.....	10,000	
Egypt:				
Alexandria	Apr. 10	.....	1	
Minieh	June 3	1	.....	
Zagazig	June 15	18	.....	
England:				
Hull	Jan. 8-Jan. 31	.....	8	On steamship Friary.
Southampton	Mar. 21	1	.....	On steamship Simla.
Formosa:				
Taichu Division	Apr. 17-Apr. 28	13	3	
Taihoku Division	Apr. 21-Apr. 27	13	9	
Taiman Division	Dec. 31-Jan. 6	28	22	
	Apr. 21-May 4	144	98	
Tamsui	Feb. 28-Mar. 31	274	205	
Hawaiian Islands:				
Honolulu	Mar. 29	.....	1	
India:				
Bombay Presidency and Sind:				
Northern Division—				
Ahmedabad City	Nov. 4-May 11	4	2	
Ahmedabad District	do	176	140	
Bombay City	do	13,039	9,843	
Broach District	do	4	1	
Dhulia Town	do	271	249	
Khandesh District	do	342	211	
Surat District	do	611	398	
Surat Town	do	43	36	
Thana District	do	1,876	1,641	
Central Division—				
Ahmednagar District	do	.....	.....	
Ahmednagar Town	do	2	1	
Nasik District	do	71	49	
Nasik Town	do	123	99	
Poona City	do	878	887	
Poona District	do	266	219	
Satara District	do	111	78	
Satara Town	do	175	66	
Southern Division—				
Belgaum District	do	4,639	3,520	
Belgaum Town	do	92	57	
Dharwar District	do	859	744	
Dharwar Town	do	450	351	
Hubli Town	do	12	11	
Kanara District	do	61	44	
Karachi City	do	2,557	2,069	
Kolaba District	do	289	248	
Ratnagiri District	do	88	65	
Political Charges				
Aundh State	do	8	4	
Baroda State	do	436	358	
Bhavnagar Town	do	560	298	
Cutch State	do	212	192	
Janjira State	do	274	232	
Kathiawar State	do	207	122	
Kolhapur and Southern Mahratta country.	do	829	620	
Mandvi Town	do	820	652	
Miraj Town	do	822	567	
Savanur State	do	52	41	

Plague, as reported to the Surgeon-General United States Marine-Hospital Service.

JUNE 30 [illegible] DECEMBER 31 [illegible]

Place	Date	Cases	Deaths	Remarks
[illegible]				
[illegible]				
[illegible]				
Madras Presidency				
Madras Province				
Madras Districts	Nov. 6 Mar. 11	[illegible]		
Madras City	do.	[illegible]	[illegible]	
North Arcot	do.	[illegible]	[illegible]	
Salem District	do.	[illegible]	[illegible]	
South Canara	do.	[illegible]	[illegible]	
Tanjore	do.	[illegible]		
Trichinopoly District	do.			
Burma				
Rangoon	do.	[illegible]	[illegible]	
Bassein District	do.	[illegible]	[illegible]	
Rangoon District	do.	[illegible]	[illegible]	
Upper Sagaing District	do.	[illegible]	[illegible]	
[illegible]	do.	[illegible]	[illegible]	
Pakokku District	do.	[illegible]	[illegible]	
Prome District	do.	[illegible]	[illegible]	
[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
Punjab Province				
[illegible]	do.	[illegible]	[illegible]	
[illegible]	do.	[illegible]	[illegible]	
Rawalpindi	[illegible]	[illegible]	[illegible]	
Lahore	[illegible]	[illegible]	[illegible]	
Patiala State	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
Mysore				
Bangalore City	[illegible]	[illegible]	[illegible]	
Bangalore City and Mysore State	[illegible]	[illegible]	[illegible]	
Bangalore District	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
Mysore City	[illegible]	[illegible]	[illegible]	
Mysore District	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
Tumkur District	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	
Hyderabad State				
[illegible]	[illegible]	[illegible]	[illegible]	
Kashmir				
[illegible]	do.	[illegible]	[illegible]	
Mahasu [illegible]	[illegible]	[illegible]	[illegible]	
[illegible]				
[illegible]	Jan. [illegible] Dec. [illegible]	[illegible]		
[illegible]	do.	[illegible]	[illegible]	
[illegible]	do.	[illegible]	[illegible]	
[illegible]	Apr. [illegible]			[illegible]
[illegible]	Jan. [illegible] Dec. [illegible]	[illegible]	[illegible]	
[illegible]	do.	[illegible]	[illegible]	
[illegible]	Apr. [illegible]			
[illegible]	Nov. [illegible] Mar. [illegible]	[illegible]		
[illegible]	Dec. [illegible] Mar. [illegible]	[illegible]	[illegible]	
[illegible]				
[illegible]	Apr. [illegible]			
[illegible]	Apr. [illegible] Apr. [illegible]	[illegible]		
[illegible]	Dec. [illegible] Mar. [illegible]	[illegible]	[illegible]	
[illegible]	Apr. [illegible]			
[illegible]	Jan. [illegible] Dec. [illegible]	[illegible]		
[illegible]				
[illegible]	Dec. [illegible] Jan. [illegible]	[illegible]	[illegible]	
[illegible] District	Nov. [illegible] Dec. [illegible]	[illegible]	[illegible]	
[illegible]	Jan. [illegible]	[illegible]	[illegible]	
[illegible]	Jan. [illegible] Jan. [illegible]	[illegible]		
[illegible]				
[illegible]	Dec. [illegible]			[illegible]
	Jan. [illegible] Mar. [illegible]			
[illegible]				
[illegible]	Mar. [illegible]	[illegible]		
[illegible]	Mar. [illegible]	[illegible]		
[illegible]	Jan. [illegible]			
[illegible]		[illegible]		
[illegible]				
[illegible]	[illegible]	[illegible]		

SMALLPOX.

Smallpox was reported from almost every country on the globe. was especially prevalent in India, Russia, Brazil, Spain, and Syri 5,444 deaths, approximately, having been reported during the year.

Smallpox as reported to the Surgeon-General United States Marine-Hospital Service.

JUNE 29, 1900, TO DECEMBER 28, 1900.

[Reports received from United States consuls through the Department of State and from other sources.]

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden	May 1-May 31	.....	3	
Argentina:				
Buenos Ayres	Apr. 1-Sept. 30	.....	19	
Australia:				
Sydney	June 2	264	92	
Austria:				
Prague	June 3-Dec. 1	175	.....	
Trieste	Oct. 7-Oct. 13	1	.....	
Belgium:				
Antwerp	June 24-Nov. 3	12	4	
Brussels	July 1-July 7	.....	1	
Ghent	Aug. 5-Sept. 15	.....	4	
British Columbia:				
Gabriola Island	Nov. 21	1	.....	
Nanaimo	Nov. 23	13	.....	
Brazil:				
Pernambuco	July 1-Nov. 15	.....	67	
Rio de Janeiro	May 12-Oct. 31	.....	186	
China:				
Amoy	Apr. 14-May 12	.....	.....	A few cases.
Hongkong	May 20-June 9	2	.....	
Cos	Apr. 1	.....	235	
Colombia:				
Barranquilla	June 24-June 30	.....	1	
Costa Rica:				
Port Limon	Aug. 8	1	.....	
Cuba:				
Manzanillo	July 29-Aug. 6	2	.....	
Ecuador:				
Guayaquil	Sept. 1-Nov. 17	.....	73	
Egypt:				
Alexandria	Aug. 28-Nov. 27	5	1	
Cairo	May 21-Nov. 18	.....	22	
England:				
Liverpool	June 10-Dec. 1	46	7	
London	do	102	1	
Manchester	June 10-Nov. 10	1	.....	
Southampton	do	9	.....	
Sunderland	Nov. 25-Dec. 1	1	.....	
West Hartlepool	Sept. 30-Dec. 1	9	.....	
Formosa	Apr. 1-Aug. 31	237	128	
France:				
Bordeaux	May 1-June 30	.....	4	
Lyons	June 3-Sept. 1	.....	15	
Marseilles	July 1-Aug. 31	.....	14	
Nice	June 6-June 30	1	.....	
Paris	June 17-Dec. 1	.....	136	
St. Etienne	June 1-Oct. 31	32	7	
Germany:				
Berlin	Aug. 10	3	.....	
Frankfort-on-the-Main	June 10-July 20	.....	4	
Königsberg	July 1-Sept. 15	4	1	
Solingen	Oct. 14-Oct. 20	1	.....	
Gibraltar	July 2-Nov. 25	.....	4	
Greece:				
Athens	June 10-Dec. 1	29	15	
India:				
Bombay	May 18-Oct. 30	.....	100	
Calcutta	Apr. 19-May 5	.....	41	
	June 24-Nov. 17	.....	168	
Karachi	May 10-Oct. 20	.....	47	
Madras	May 26-Nov. 9	.....	13	
Italy:				
Genoa	June 10-June 16	3	.....	
Naples	Oct. 17-Nov. 14	17	1	
Japan:				
Nagasaki	May 21-Oct. 20	4	.....	
Osaka and Hiogo	June 3-June 9	1	.....	

Sanitary [illegible] as reported to the Surgeon-General United States Marine-Hospital Service—Con

JUNE 30, 1900, TO DECEMBER 31, 1900—continued.

Places	Date	Cases	Deaths	Remarks
[illegible]				
[illegible]	May [illegible] May [illegible]			Endemic
[illegible]				
[illegible]	May [illegible] July [illegible]	[illegible]		
[illegible]				
[illegible]	May [illegible] June [illegible]		[illegible]	
[illegible]	May [illegible] Dec [illegible]	[illegible]	[illegible]	
[illegible]	June 21			Small pox reported
[illegible]	Dec [illegible] Dec [illegible]	[illegible]		
[illegible]	Nov 21 Dec [illegible]	[illegible]	[illegible]	
[illegible]	June 17 Nov [illegible]	[illegible]	[illegible]	
[illegible]				
[illegible]	[illegible] [illegible]	[illegible]		
[illegible]				
[illegible]	June [illegible] June [illegible]	[illegible]		
[illegible]				
[illegible]	June 1		[illegible]	
[illegible]	June [illegible] June [illegible]	[illegible]	[illegible]	
[illegible]	Jan 1 Sept [illegible]	[illegible]		
[illegible]				
[illegible]	May [illegible] June [illegible]	[illegible]		
[illegible]	May [illegible] June [illegible]	[illegible]		
[illegible]	May [illegible] Aug [illegible]	[illegible]		
[illegible]	June [illegible] Aug [illegible]			
[illegible]	Apr [illegible] Aug [illegible]	[illegible]	[illegible]	
[illegible]	Apr [illegible] June [illegible]	[illegible]	[illegible]	
[illegible]	[illegible] [illegible]	[illegible]	[illegible]	
[illegible]				
[illegible]	May [illegible] Nov [illegible]	[illegible]	[illegible]	
[illegible]	[illegible] [illegible]	[illegible]	[illegible]	
[illegible]	Apr [illegible] Nov [illegible]	[illegible]	[illegible]	
[illegible]	Apr [illegible] Nov [illegible]	[illegible]	[illegible]	
[illegible]	May [illegible] [illegible]	[illegible]	[illegible]	
[illegible]				
[illegible]	[illegible] [illegible]	[illegible]		
[illegible]	[illegible] [illegible]	[illegible]	[illegible]	
[illegible]	[illegible] [illegible]	[illegible]		
[illegible]				
[illegible]	Aug [illegible] Nov [illegible]	[illegible]		
[illegible]	[illegible] [illegible]	[illegible]		
[illegible]	[illegible] [illegible]	[illegible]		
[illegible]	[illegible] [illegible] Nov [illegible]	[illegible]		
[illegible]	May [illegible] [illegible]	[illegible]		
[illegible]	Nov [illegible] Nov [illegible]	[illegible]		
[illegible]				
[illegible]	Ma			
[illegible]				
[illegible]	June [illegible] Aug [illegible]			
[illegible]	[illegible] [illegible] Aug [illegible]			
[illegible]				
[illegible]	May [illegible] Ma	[illegible]		
[illegible]				
[illegible]	June [illegible] Sept [illegible]	[illegible]		

[illegible]

[illegible]				
[illegible]	[illegible] Ma	[illegible]		
[illegible]	Nov [illegible] [illegible]			
[illegible]				
[illegible]	[illegible]			
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Smallpox as reported to the Surgeon-General United States Marine-Hospital Service—C

DECEMBER 29, 1900, TO JUNE 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Canada:				
Manitoba—				
Winnipeg	May 12-June 1	9	.....	
Ontario—				
Algoma County	Jan. 1-May 13	96	.....	
Carleton County	.....do	1	.....	
Glengary County	May 6	1	.....	
Haldimand County	Jan. 1-May 13	1	.....	
Huron County	.....do	1	.....	
Lennox County	.....do	1	.....	
Middlesex County	.....do	6	.....	
Monitonlin County	.....do	1	.....	
Muskoka County	.....do	3	.....	
Nipissing County	May 11	24	.....	
Norfolk County	Jan. 1-May 13	1	.....	
Northumberland County	.....do	1	.....	
Oxford County	May 6	2	.....	
Rainy River County	May 10	1	.....	
Renfrew County	Jan. 1-May 13	17	.....	
Simcoe County	.....do	4	.....	
Thunder Bay County	.....do	11	.....	
Victoria County	May 12-May 14	4	.....	
Waterloo County	May 12	2	.....	
Wentworth County	May 25-June 1	14	.....	
York County	Jan. 1-May 13	4	.....	
Quebec—				
Beauharnois County	May 27	3	.....	
Brome County	.....do	12	.....	
Chateauguay County	Apr. 5-May 14	1	.....	
Huntingdon County	Mar. 25-May 14	1	.....	
Iberville County	May 11-May 14	4	.....	
Jacques-Cartier County	May 27	1	.....	
La Prairie County	Feb. 10-May 14	16	1	
Matane County	Mar. 25-May 27	17	.....	
Missisquoi County	Mar. 24-May 27	65	.....	
Montreal County	Apr. 20-May 27	6	.....	
Napierville County	Jan. 9-May 14	22	1	
Ottawa County	Mar. 3-May 14	5	.....	
Pontiac County	Feb. 11-May 27	18	.....	
Rimouski County	Feb. 10-May 14	1	.....	
St. Hyacinthe County	May 27	1	.....	
Shefford County	.....do	1	.....	
Terrebonne County	Apr. 15-May 27	55	.....	
Ceylon:				
Colombo	Jan. 6-May 11	.....	12	
China:				
Amoy	Sept. 8-Apr. 22	.....	.....	Present.
Hongkong	Dec. 2-May 11	78	56	
Colombia:				
Grenada	May 16	.....	.....	Prevalent.
Maragua	.....do	.....	.....	Do.
Masaya	.....do	.....	.....	Do.
Panama	Apr. 9-June 17	40	7	
Cuba:				
Banes	Jan. 25	2	.....	
Jucaro	June 6	2	.....	
Ecuador:				
Guayaquil	Nov. 18-Mar. 23	.....	59	
Egypt:				
Alexandria	Nov. 27-Dec. 31	8	7	
Cairo	Jan. 1-May 14	.....	14	
England:				
Bradford	Dec. 16-May 18	52	.....	
Hebburn-upon-Tyne	Apr. 6-May 7	16	2	
Leeds	Dec. 30-Apr. 20	3	.....	
Liverpool	Feb. 3-June 8	13	4	
London	Dec. 2-June 14	21	2	
Newcastle-upon-Tyne	Jan. 6-May 18	47	1	
Sheffield	Apr. 14-Apr. 20	1	.....	
Southampton	Mar. 10-Apr. 13	5	.....	
West Hartlepool	Dec. 9-Dec. 15	1	.....	
Formosa:				
Tamsui	Feb. 1-Mar. 31	71	2	
France:				
Marseille	Dec. 1-Apr. 30	.....	15	
Nantes	Feb. 1-Apr. 30	2	.....	
Paris	Dec. 2-June 8	.....	284	
Rheims	Mar. 4-Apr. 15	.....	1	
Roubaix	Jan. 1-Jan. 31	.....	1	
St. Etienne	Jan. 1-May 30	6	.....	

Quarantine as reported to the Surgeon-General United States Marine-Hospital Service (Cont.

DECEMBER 30, 1900, TO JUNE 30, 1901 (continued)

Places	Date		Cases	Deaths	Remarks
Germany					
Bremen	Apr 16	Apr 30	1		
Leipzig	Feb 17	Feb 23		1	
Gibraltar	Dec 17	June 2	1		
Greece					
Athens	Dec 2	June 4	4	1	
Hawaiian Islands					
Hawaii	Apr 2	May 4	4		
India					
Bombay	Nov 21	May 21		105	
Calcutta	Nov 16	May 16		1,[illegible]	
Karachi	Dec 3	May 19	[illegible]	[illegible]	
Madras	Nov 17	May 17		11[illegible]	
Ireland					
Belfast	May 10		1	1	
Italy					
Leghorn	Dec 9	Dec 15		1	
Messina	Mar 30	June 4	1	1	On steamship Martha
Milan	Apr 20		1		
Naples	Jan 20	June 4	[illegible]	[illegible]	
Japan					
Nagasaki	May 6		1		
Tokyo	[illegible]		1		
Yokohama	Feb 17	Mar 10	1		
Korea					
Gensan	Dec 1	Jan 1	1		Reported present
Malta					
Valetta	Dec 10	Mar	[illegible]		
Mexico					
City of Mexico	Dec 10	[illegible]	1	1	
Merida	Dec 30	Feb 28			Reported
Nuevo Laredo	Apr 3			1	
Progreso	Feb 2	Apr 1	1		
Tampico	Dec 11	Mar 4		1	
Vera Cruz	Dec 14	Mar 27		1	
New Brunswick					
Chamcook and Westmorland and vicinity	Feb 9		1		
Netherlands					
Rotterdam	Feb 20	Apr 4	1		Reported
Newfoundland					
Bonavista	Apr 1				
Philippine Islands					
Cebu	Mar 9	Apr 27	1	1	
Iloilo	Apr 2		1		
Manila	Jan 1	Mar 1	1		
Porto Rico					
Aguadilla Barrio	Feb 1	Apr			[illegible]
Bayamon	1				
Caguas	1		1		
Cayey	1		1		
Humacao	Mar 1	Apr 1[illegible]	1		
Manati	1		1		
Mayaguez	Feb 1	Apr 1[illegible]	1		
Ponce	1		1		
Ponce	Mar 16	[illegible]	[illegible]	1	
Quebradillas	Feb 1	Apr 10	1		
San Juan	1		1		
Russia					
Libau	Nov 20	Mar 25	[illegible]	[illegible]	
Odessa	Apr 1	June 1	63	[illegible]	
Riga	Oct 1	Dec 31	[illegible]	[illegible]	
St. Petersburg	Apr 1	[illegible] 1	1	[illegible]	
Libau (vessel)	Jan 1	Jan [illegible]	1		
Odessa	Dec 1	Mar [illegible]	1		
Scotland					
Dundee	Jan [illegible]	Mar [illegible]	[illegible]		
Edinburgh	Dec 20	Mar 2			
Glasgow	Dec 6	June 9		[illegible]	
Leith	Dec 20	Apr 1[illegible]			
Spain					
Barcelona	Apr 11				[illegible]
Spain					
Barcelona	Jan 1	Mar [illegible]	1	1	
Cartagena	Feb 1[illegible]	[illegible]	1		
Malaga	Mar 9	June 1	1		
Santander	Mar 1	Mar 1[illegible]	1	1	
Vigo	Mar 1	Mar 1[illegible]	1	1	

Smallpox as reported to the Surgeon-General United States Marine-Hospital Service—Con.

DECEMBER 29, 1900, TO JUNE 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements:				
Singapore	Nov. 24–May 6	.....	11	
Switzerland:				
Geneva	Mar. 3–May 25	10	.....	
Syria:				
Beirut	May 25	.....	.....	Present.
Jerusalem	Aug. 2–Feb. 5	1,500	500	
Turkey:				
Smyrna	Apr. 8–Apr. 14	.....	1	
Uruguay:				
Montevideo	Mar. 17–Mar. 23	5	.....	

DIVISION OF INSULAR AND FOREIGN QUARANTINE AND IMMIGRATION.

Smallpox as reported to the Surgeon-General United States Marine-Hospital Service—(

DECEMBER 29, 1900, TO JUNE 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Canada:				
Manitoba—				
Winnipeg	May 12-June 1	9	.....	
Ontario—				
Algoma County	Jan. 1-May 13	96	.....	
Carleton County	.....do	1	.....	
Glengary County	May 6	1	.....	
Haldimand County	Jan. 1-May 13	1	.....	
Huron County	.....do	1	.....	
Lennox County	.....do	1	.....	
Middlesex County	.....do	6	.....	
Monitonlin County	.....do	1	.....	
Muskoka County	.....do	3	.....	
Nipissing County	May 11	24	.....	
Norfolk County	Jan. 1-May 13	1	.....	
Northumberland County	.....do	1	.....	
Oxford County	May 6	2	.....	
Rainy River County	May 10	1	.....	
Renfrew County	Jan. 1-May 13	17	.....	
Simcoe County	.....do	4	.....	
Thunder Bay County	.....do	11	.....	
Victoria County	May 12-May 14	4	.....	
Waterloo County	May 12	2	.....	
Wentworth County	May 25-June 1	14	.....	
York County	Jan. 1-May 13	4	.....	
Quebec—				
Beauharnois County	May 27	3	.....	
Brome County	.....do	12	.....	
Chateauguay County	Apr. 5-May 14	1	.....	
Huntingdon County	Mar. 25-May 14	1	.....	
Iberville County	May 11-May 14	4	.....	
Jacques-Cartier County	May 27	1	.....	
La Prairie County	Feb. 10-May 14	16	1	
Matane County	Mar. 25-May 27	17	.....	
Missisquoi County	Mar. 24-May 27	65	.....	
Montreal County	Apr. 20-May 27	6	.....	
Napierville County	Jan. 9-May 14	22	1	
Ottawa County	Mar. 3-May 14	5	.....	
Pontiac County	Feb. 11-May 27	18	.....	
Rimouski County	Feb. 10-May 14	1	.....	
St. Hyacinthe County	May 27	1	.....	
Shefford County	.....do	1	.....	
Terrebonne County	Apr. 15-May 27	55	.....	
Ceylon:				
Colombo	Jan. 6-May 11	.....	12	
China:				
Amoy	Sept. 8-Apr. 22	.....	.....	Present.
Hongkong	Dec. 2-May 11	78	56	
Colombia:				
Grenada	May 16	.....	.....	Prevalent.
Maragua	.....do	.....	.....	Do.
Masaya	.....do	.....	.....	Do.
Panama	Apr. 9-June 17	40	7	
Cuba:				
Banes	Jan. 25	2	.....	
Jucaro	June 6	2	.....	
Ecuador:				
Guayaquil	Nov. 18-Mar. 23	.....	59	
Egypt:				
Alexandria	Nov. 27-Dec. 31	8	7	
Cairo	Jan. 1-May 11	.....	14	
England:				
Bradford	Dec. 16-May 18	52	.....	
Hebburn-upon-Tyne	Apr. 6-May 7	16	2	
Leeds	Dec. 30-Apr. 20	3	.....	
Liverpool	Feb. 3-June 8	13	4	
London	Dec. 2-June 14	21	2	
Newcastle-upon-Tyne	Jan. 6-May 18	47	1	
Sheffield	Apr. 14-Apr. 20	1	.....	
Southampton	Mar. 10-Apr. 13	5	.....	
West Hartlepool	Dec. 9-Dec. 15	1	.....	
Formosa:				
Tamsui	Feb. 1-Mar. 31	71	2	
France:				
Marseille	Dec. 1-Apr. 30	.....	15	
Nantes	Feb. 1-Apr. 30	2	.....	
Paris	Dec. 2-June 8	.....	284	
Rheims	Mar. 4-Apr. 15	.....	1	
Roubaix	Jan. 1-Jan. 31	.....	1	
St. Etienne	Jan. 1-May 30	6	.....	

Smallpox as reported to the Surgeon-General United States Marine-Hospital Service (Con.).

DECEMBER 29, 1900, TO JUNE 28, 1901 (continued).

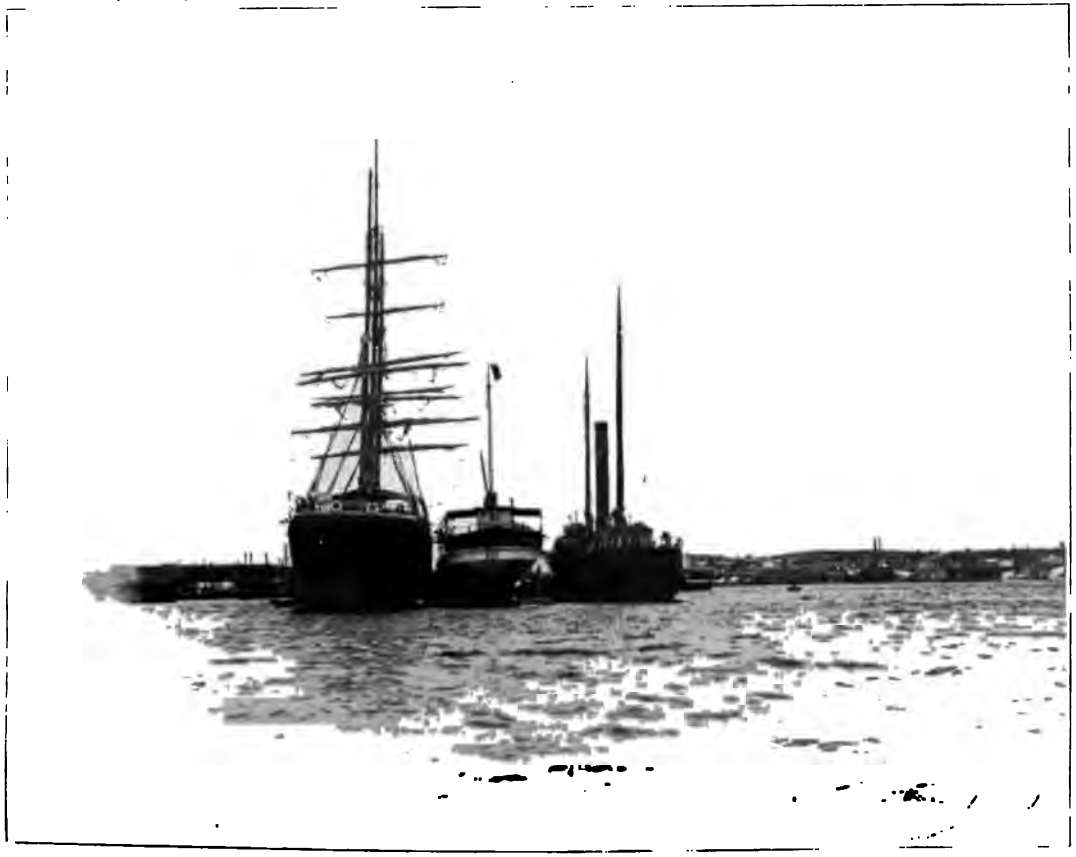
Places	Date		Cases	Deaths	Remarks
Germany					
Bremen	Apr 16	Apr 30	1		
Leipzig	Feb 17	Feb 23		1	
Gibraltar	Dec 17	June 7	3		
Greece					
Athens	Dec 2	June 8	8	1	
Hawaiian Islands					
Kauai	Apr 24	May 1	2		
India					
Bombay	Nov 21	May 31		105	
Calcutta	Nov 18	May 18		1,[illegible]	
Karachi	Dec 3	May 19	[illegible]	79	
Madras	Nov 17	May 17		111	
Ireland					
Belfast	May 18		1	1	
Italy					
Leccia	Dec 9	Dec 15		2	
Messina	Mar 30	June 8	17	2	Imported by steamship Martha
Milan	Apr 20		1		
Naples	Jan 30	June 9	[illegible]	176	
Japan					
Nagasaki	May 6		2		
Tokyo	[illegible]		5		
Yokohama	Feb 17	Mar 30	1		
Korea					
Gensan	Dec 1	Jan 1	1		Reported present
Malta					
Valetta	Dec 16	Mar 31	11		
Mexico					
Ciudad Mexico	Dec 16	June 8	8	1	
Merida	Dec 30	Feb 28	28		Epidemic
Nuevo Laredo	Apr 30			1	
Progreso	Feb 2	Apr 6	30	1	
Tampico	Dec 11	Mar 4	4	1	
Veracruz	Dec 16	May 25	2	1	
New Brunswick					
Gloucester and Westmorland counties	Feb 9		6		
Netherlands					
Rotterdam	Feb 16	Apr 6	6		Imported
Newfoundland					
Bonavista	Apr 1				
Philippine Islands					
Cebu	Mar 9	Apr 2	1	1	
Iloilo	Apr 2		1		
Manila	Jan 1	May	9		
Porto Rico					
Aguas Buenas	Feb 1	Apr [illegible]			[illegible]
Bayamon	[illegible]		1		
Caguas	[illegible]		1		
Cayey	[illegible]		[illegible]		
Isabela	Mar [illegible]	Apr [illegible]	4		
Manati	[illegible]				
Mayaguez	Feb 1	Apr 1	1		
Ponce	[illegible]		2		
Ponce	Mar 16	[illegible]	[illegible]	1	
Quebradillas	Feb 1	Apr [illegible]	4		
San Pedro	[illegible]		1		
San Juan	[illegible]		1		
Russia					
Batum	Nov 26	Mar [illegible]	[illegible]	[illegible]	
Odessa	Apr 1	June [illegible]	[illegible]	[illegible]	
Riga	Oct 1	Dec [illegible]	[illegible]	[illegible]	
St. Petersburg	Apr 1	[illegible]	[illegible]	[illegible]	
Vladivostok	Jan 1	Jan [illegible]	[illegible]		
Warsaw	Dec 2	Mar [illegible]	[illegible]	1	
Scotland					
Dundee	Jan [illegible]	Mar [illegible]	[illegible]		
Edinburgh	Dec 30	Mar [illegible]	1		
Glasgow	Dec [illegible]	[illegible]	[illegible]	[illegible]	
Leith	Dec 30	Apr [illegible]	[illegible]		
Spain					
Cadiz	Apr 1			1	[illegible]
Spain					
Barcelona	Jan 1	Mar [illegible]	[illegible]	[illegible]	
Cartagena	Feb [illegible]	[illegible]	[illegible]		
Malaga	Mar [illegible]	June [illegible]	1		
Valencia	Mar 1	Mar [illegible]	[illegible]		
Vigo	Mar 1	Mar [illegible]	[illegible]	1	

Smallpox as reported to the Surgeon-General United States Marine-Hospital Service—Con.

DECEMBER 29, 1900, TO JUNE 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements:				
Singapore	Nov. 24–May 6	.....	11	
Switzerland:				
Geneva	Mar. 3–May 25	10	.....	
Syria:				
Beirut	May 25	.....	.....	Present.
Jerusalem	Aug. 2–Feb. 5	1,500	500	
Turkey:				
Smyrna	Apr. 8–Apr. 14	.....	1	
Uruguay:				
Montevideo	Mar. 17–Mar. 23	5	.....	

DIVISION OF INSULAR AND FOREIGN QUARANTINE AND IMMIGRATION.



U. S. DISINFECTING STEAMER SANATOR. SIMULTANEOUS DISINFECTION OF RUSSIAN BARK WOLFF AND AMERICAN STEAMER FANITA, HABANA HARBOR, 1901.

REPORT OF THE DIVISION OF INSULAR AND FOREIGN QUARANTINE AND IMMIGRATION.

By R. M. Woodward,

Surgeon, U. S. Marine-Hospital Service, in Charge.

CUBA.

The quarantine system of Cuba is under the supervision of a chief quarantine officer for Cuba, located at Habana, who also has charge of the quarantine measures enforced at that port.

Outside of Habana the principal ports where maritime quarantine is maintained are Matanzas, Nuevitas, Santiago, and Cienfuegos. In addition to these, there are inspection stations at 14 smaller ports.

FLOATING DISINFECTING PLANTS.

In addition to the *Senator* at Habana, and the *Rough Rider* at Santiago, the Service has established a fully equipped floating plant, [illegible], at Matanzas, and a similar plant, the *Sentinel*, at Cienfuegos. A plant for Nuevitas is now nearing completion at the port of Habana.

REPORT OF CHIEF QUARANTINE OFFICER—HABANA AND SUBPORTS.

[illegible] QUARANTINE CONDITIONS IN THE ISLAND OF CUBA, INCLUDING [illegible] TRANSACTIONS AT THE PORT OF HABANA AND SUBPORTS OF THE FIRST [illegible] DISTRICT OF CUBA FOR THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO [illegible] REPORT OF TRANSACTIONS TO SEPTEMBER 15, 1901, INCLUSIVE.

[illegible] HOSPITAL SERVICE, OFFICE OF MEDICAL OFFICER IN COMMAND,
Habana, September 5, 1901.

[illegible] following report of the transactions of the quarantine service on the [illegible] submitted for the fiscal year 1901:

[illegible] officer at Habana having been designated as chief quarantine [illegible] to date from July 15, 1900, a greater degree of efficiency and [illegible] has been attained at the various ports of entry. The coast line is divided [illegible] five quarantine districts, as follows:

[illegible] Habana, with subport of Batabano and the Mariel quarantine [illegible].

[illegible] The north coast of the provinces of Matanzas and Santa Clara, [illegible] ports of Matanzas, Cardenas, Isabela de Sagua, and Caibarien.

[illegible] All the north and northeast coast of Principe and Santiago, from [illegible] Cape Maysi embracing the ports of Nuevitas, Puerto Padre, Gibara, [illegible] Maysi and Baracoa.

[illegible] South coast of Santiago de Cuba from Cape Maysi to Manzanillo, [illegible] ports of Santiago de Cuba, Guantanamo (Caimanera), and Manza-

[illegible] South coast of Puerto Principe and Santa Clara, with the ports of [illegible] Trinidad, Jucaro, Tunas de Zaza (Sancti Spiritus), and Santa [illegible]

Twenty-nine quarantine officers are stationed at the various ports, of whom 21 are Cuban physicians, selected men, in training for practical quarantine work. Each of the five districts is in command of an experienced officer, to whom reports are made from the subports, and, in turn, by him to the chief quarantine officer at Habana.

The duties of all these quarantine officers have been admirably performed during the year, in the inspection of incoming and outgoing vessels, passengers, crews, and the issue of bills of health. A particular degree of efficiency has been observed in the prompt sanitary information furnished as to the health conditions prevailing in all the seacoast cities and towns.

In some cases the Cuban quarantine officer also acts as city health officer, in the smaller places to great advantage.

In a number of instances quick instructions were issued from this office for the investigation of rumors of cases of smallpox and yellow fever, especially along the south coast of the island.

The modern system of carrying out the purification of vessels and cargoes has been provided for in Cuba by the location, at central points, of disinfecting barges equipped with the latest, most improved machinery. The first of these, the *Rough Rider*, was placed in operation at Santiago de Cuba in 1898. Habana Harbor was supplied by the U. S. barge *Protector*, and afterwards the *Sanator*, also the property of the United States and lent to the island as being the best equipment for the great number of vessels asking for disinfection. During the year two of these barges, the *Guardian* and the *Sentinel*, were fitted out in Philadelphia and towed to Matanzas and Cienfuegos, respectively. A substantial hull, the *Susana*, was purchased in Habana Harbor and the latest machinery installed on her by the quarantine force. This barge is now completed and will shortly be towed to Nuevitas, thus equipping each of the quarantine districts with a floating disinfection plant.

FLOATING DISINFECTING PLANTS A COMMERCIAL BENEFIT.

The advantage of these floating plants has been practically demonstrated during the year. This is particularly shown in the disinfection of cattle steamers at ports on the north coast of Cuba immediately prior to departure for Gulf ports in the United States. The period of incubation, of yellow fever particularly, is then practically undergone at sea, and if the crew be immune the vessel is admitted without delay at the State quarantine stations. Confidence in the practical application of quarantine in the island of Cuba is now established with the health officers of the United States and certificates of health and immunity of passengers, vessels, and crews are generally accepted. Recently all the Florida State quarantine stations have been turned over to the control of the United States Government, and this is a distinct advantage to the island of Cuba in the recognition of her sanitary evolution.

SCHOOL FOR INSTRUCTION IN PRACTICAL QUARANTINE WORK.

While quarantine procedures were understood theoretically during the Spanish régime, it has been noticed that the practical application was very faulty, causing a great lack of confidence in other countries and the imposition of sanitary restrictions in self-defense. The present Cuban quarantine officers are far above the average that formerly prevailed; and as the opportunity affords they are ordered to Habana for thirty days' instruction in the practical operations of the Service, the care necessary in the issue of immune certificates, and particularly the operation of modern disinfecting machinery.

IMMUNE CERTIFICATES.

For the past twenty years, during which time the Marine-Hospital Service maintained a sanitary inspector at Habana, the question of immunity to yellow fever has been a vexatious one. Certificates are issued only upon reliable evidence and as an accommodation to travelers. To the average native, regulations, most especially in the quarantine service, are obnoxious and indifferently understood; but so long as uninfected seaports in Cuba, Porto Rico, or the United States indicate under what sanitary conditions passengers may enter their gates without detention these rules will be maintained, and the white certificates issued as an accommodation, not as a right.

BOARDING FACILITIES.

The steam launches provided at the larger ports for the boarding officers have been maintained in good condition and efficiency at very reasonable expense. The inspec-

QUARANTINE STEAMER FESSENDEN, HABANA HARBOR, 1901.

Smallpox as reported to the Surgeon-General United States Marine-Hospital Service—Con.

DECEMBER 29, 1900, TO JUNE 28, 1901—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements:				
Singapore	Nov. 24-May 6	.....	11	
Switzerland:				
Geneva	Mar. 3-May 25	10	.....	
Syria:				
Beirut	May 25	.....	.....	Present.
Jerusalem	Aug. 2-Feb. 5	1,500	500	
Turkey:				
Smyrna	Apr. 8-Apr. 14	.....	1	
Uruguay:				
Montevideo	Mar. 17-Mar. 23	5	.....	

DIVISION OF INSULAR AND FOREIGN QUARANTINE AND IMMIGRATION.

U. S. DISINFECTING STEAMER SANATOR. SIMULTANEOUS DISINFECTION OF RUSSIAN BARK WOLFF AND AMERICAN STEAMER FANITA, HABANA HARBOR, 1901.

Further, I would state that such time as the [illegible] could be spared the men have worked on the [illegible] and [illegible] this vessel, which is completely finished, could be made available [illegible]

Respectfully,

JOHN [illegible],

Acting Assistant Surgeon, U. S. Marine Hospital Service.

[illegible] A. H. GLENNAN,

Chief Quarantine Officer, Halifax, [illegible]

[illegible]

Tonnage of the [illegible] during the week ending June [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[Inclosure No. 4.]

Transactions of passenger department from September 16, 1900, to and including June 30, 1901.

Month.	Inspected.	Vaccinated.	Immunes accepted.	Immunes rejected.
1900.				
September	374	28	182	42
October	748	66	212	69
November	982	50	136	38
December	2,141	156	.....	.....
Total	4,245	300	530	149
1901.				
January	1,595	102	.....	.....
February	2,012	87	.....	.....
March	2,926	69	.....	.....
April	2,065	41	9	7
May	1,280	6	222	49
June	1,548	3	484	30
Total	11,426	308	715	86

[Inclosure No. 5.]

Mortuary statistics, September 16, 1900, to June 30, 1901.

	1900.				1901.					
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Yellow fever	31	74	53	21	9	6	2	.....	.....	.....
Typhoid	5	5	7	4	3	1	10	10	16	15
Diphtheria	.....	2	2	2	.....	1	4	3	1	.....
Glanders	1	1	.....	2	2	2	2	1	.....	1
Scarlet fever	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Malaria	11	25	8	18	12	15	10	.....	17	.....
Measles	.....	.....	.....	1	1	.....	.....	.....	.....	1
Tuberculosis	35	73	56	68	96	62	78	87	69	55
Enteritis	15	38	28	40	56	52	122	143	137	154
Meningitis	.....	24	.....	28	30	18	49	38	.....	5
Cancer	.....	7	.....	12	10	11	16	15	22	10
All causes	258	507	440	485	476	408	557	565	517	488

[Inclosure No. 6.]

Transactions of the shore disinfecting plant from September 16, 1900, to June 30, 1901.

	1900.				1901.					
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Baggage inspected	920	405	1,060	1,277	2,380	4,186	6,222	5,132	3,724	3,865
Freight inspected	34	4,684	3,579	3,291	1,421	1,033	814	1,552	2,886	8,287
Express inspected	.....	344	185	91	119	46	72	37	113	91
Total	954	5,433	4,824	4,659	3,920	5,265	7,108	6,701	6,723	12,204
Baggage disinfected	769	1,002	456	1,193	690	372	549	574	2,422	865
Freight disinfected	442	442	1,021	116	3	.....	.....	2	44	309
Express disinfected	70	123	26	59	37	12	13	4	17	7
Mail disinfected	41	59	42	7	.....	.....	.....	.....	.....	.....
Total	1,322	1,626	1,545	1,375	730	384	562	580	2,483	1,173
To be disinfected	.....	9	51	148	79	9	7	46	78	122
Total handled	2,276	7,068	6,420	6,182	4,729	5,658	7,677	7,327	9,282	13,500

SUPPLEMENTAL REPORT FROM HABANA.

MARINE-HOSPITAL SERVICE,
OFFICE OF MEDICAL OFFICER IN COMMAND,
Habana, September 23, 1901.

SIR: I have the honor to submit the following supplemental report for the period from June 30 to September 15, inclusive:

Yellow fever report.

	Cases	Deaths
July		
Habana	1	1
Santiago de las Vegas	1	
Regla	1	1
August		
Habana	[illegible]	2
Isolation station	2	
Santiago de las Vegas	2	
Santiago de las Baños	1	
Regla	1	
Cabañas	1	
Shipping	1	
September		
Habana	1	
Santiago de las Vegas	1	
	[illegible]	[illegible]

Passenger department.

	[illegible]	[illegible]	[illegible]
Passengers inspected	[illegible]	[illegible]	[illegible]
Persons vaccinated		[illegible]	[illegible]
Persons examined for immunity			
Accepted	[illegible]	[illegible]	[illegible]
Rejected	[illegible]		[illegible]

Harbor department.

Incoming vessels inspected	[illegible]
Outgoing vessels inspected bound for United States or Porto Rico [illegible]	[illegible]
Outgoing vessels inspected bound for Cuban ports not having [illegible] communication with Habana	[illegible]
Vessels inspected bound for United States or Porto Rico [illegible] ports	[illegible]
Total	[illegible]
Crews of vessels inspected	
Incoming	[illegible]
Outgoing	[illegible]
Total	[illegible]
Passengers of vessels inspected	
Incoming	[illegible]
Outgoing	[illegible]
Total	[illegible]
Seamen examined and provisioned for	[illegible]
Seamen examined and sent to hospital	[illegible]
Persons examined for yellow fever	[illegible]

Persons examined prior to shipping as to immunity from smallpox by previous attack or successful vaccination	118
Persons examined and vaccinated	10
Total	298
Grand total of persons inspected	25,461
Triplicated bill of health issued for vessels bound for United States or Porto Rico	474
Bills of health issued for vessels bound for foreign ports	78
Duplicated bills of health issued for vessels bound for Cuban ports:	
Having railroad communication with Habana	312
Not having railroad communication with Habana	56
Total	920
Certificates issued for pilot's license	15
Vaccination certificates	128
Duplicated hospital permits issued	50
Permits issued for shipping ballast	10
Certificates issued referring to mechanical cleanliness of cattle vessels	94
Total	297
Immigrants inspected and passed	2,453
Immigrants recommended to be detained for further physical investigation	130
Immigrants deported for physical cause	6
Total	2,589

Shore disinfecting plant.

Baggage disinfected	5,556
Express disinfected	53
Freight disinfected	290
Total	5,899
Baggage inspected and passed	7,132
Express inspected and passed	323
Freight inspected and passed	16,286
To be disinfected	278
Total	24,019
Total handled	29,918

Disinfecting steamer Sanator.

	July.	August.	September.	Total.
Cargo vessels disinfected	30	26	9	65
Fishing smacks disinfected	48	16	5	69
Baggage disinfected	2,459	1,443	676	4,578
Crews and passengers inspected	862	555	197	1,614

Triarcrwin Detention Camp.

Nonimmune passengers detained at quarantine 315

No cases of sickness occurred during the stay of any of these passengers at the camp.

Mortuary report.

July	
Yellow fever	2
Typhoid	5
Diphtheria	1
Dysentery	3
Enteritis	146
Measles	0
Scarlatina	2
Tuberculosis	91
Meningitis, simple	19
Malaria	11
Cancer and other malignant humors	15
Total deaths from all causes	317
August	
Yellow fever	5
Typhoid	4
Diphtheria	5
Dysentery	1
Enteritis	57
Measles	1
Scarlatina	1
Tuberculosis	74
Meningitis	42
Malaria	16
Cancer and other malignant humors	13
Total deaths from all causes	480
September 1st to 16th	
Typhoid	4
Dysentery	2
Enteritis	10
Tuberculosis	31
Measles	1
Grippe	1
Pneumonia	5
Malaria	1
Total deaths from all causes	101

Respectfully,

A. H. GLENNAN,
Surgeon U. S. Marine Hospital Service,
Commanding Officer of the Island Station.

Surgeon-General Marine Hospital Service.

NATAL[illegible]

Report of transactions at Natal[illegible] September [illegible] to June [illegible]

Marine Hospital Service,
Natal[illegible], September [illegible]

Sir: I have the honor to submit the following report of the transactions at this station for the period from September 16, 1900, to June [illegible], 1901.

One hundred and thirty-three vessels were inspected and granted free pratique on arrival. Of this number 1[illegible] were engaged in the coastwise trade and the remain

ing 5 were from foreign ports. Two thousand nine hundred and thirty-three members of crews and 2,765 passengers were inspected on arrival. One hundred and seventy-two vessels were given bills of health and 3,358 members of crews and 2,750 passengers were inspected before departure. One thousand six hundred and ninety-seven certificates were issued to outgoing passengers and 63 passengers were vaccinated.

One case of yellow fever occurred during the period covered by this report, and owing to the fact that the case was promptly isolated and the premises disinfected, no further cases developed.

Respectfully,

José M. Campos,
Acting Assistant Surgeon, U. S. Marine Hospital Service.

SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Supplemental report to September 15, 1901.

MARINE-HOSPITAL SERVICE,
Batabanó, Cuba, September 24, 1901.

SIR: I have the honor to submit the following supplemental report for the period from July 1 to September 15, 1901, both inclusive.

Fifty-eight vessels were inspected and granted free pratique on arrival and 1,252 members of crews and 1,154 passengers were inspected and permitted to land. Of the vessels inspected on arrival, 2 were from foreign ports and the remainder from coastwise ports of Cuba. Fifty-nine bills of health were issued to outgoing vessels and 1,300 members of crews and 911 passengers were inspected before departure.

On August 30 the British sloop *Vaquero* arrived from Cortes, Cuba, with 1 death en route. The case was that of a boy 10 years of age, who died from dysentery and malaria. The cabin of the vessel was disinfected with sulphur and the vessel allowed to enter.

Respectfully,

José M. Campos,
Acting Assistant Surgeon, U. S. Marine Hospital Service.

SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

MATANZAS AND SUBPORTS.

REPORT OF TRANSACTIONS AT THE PORT OF MATANZAS AND THE SUBPORTS OF THE SECOND QUARANTINE DISTRICT OF CUBA DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By P. A. Surg. G. M. GUITERAS.

MARINE-HOSPITAL SERVICE,
Matanzas, July 24, 1901.

SIR: In accordance with instructions contained in letter from the chief quarantine officer under date of June 8, 1901, I have the honor to submit herewith a report of the transactions of the service in the second quarantine district of the island of Cuba during the fiscal year ended June 30, 1901.

The district referred to comprises that part of the northern coast of the island within the limits of the provinces of Matanzas and Santa Clara, and includes the four important ports of Matanzas, Cardenas, Isabela de Sagua, and Caibarien. The latter two are the ports of entry of the large towns of Sagua la Grande and Remedios, respectively, which are situated a short distance inland from the coast. Of the four ports above mentioned the latter three are to be considered, from a quarantine point of view, simply as inspecting stations, and, therefore, are not provided with disinfecting apparatus. Infected vessels arriving at such stations are remanded by the quarantine officer in charge to the fully equipped Matanzas station for disinfection and detention.

[illegible] MATANZAS CUBA

The equipment of the Matanzas quarantine station is adequate for the performance of [illegible] work expected of it, except in a few minor details.

The station and its equipment may be described as follows:

[illegible]. Under the old regime this building was occupied by the [illegible], but shortly after the American occupation it was transferred to the Marine-Hospital Service by the U. S. Military Government. Although in a [illegible] dilapidated condition, it is admirably situated for its present purposes, fronting [illegible] directly on the bay and commanding a splendid view of the same. [illegible] suggested in my report of the operations of the Service for the fiscal year ended [illegible] 1900 a new building should be erected on this site as soon as it is practicable.

[illegible] is situated immediately back of and adjoining the office [illegible]. It is a rectangular frame structure, 36 feet 2 inches long by 16 feet 5 inches [illegible] with a [illegible] roof, and divided by a partition into two unequal parts, the larger part occupied by the disinfecting apparatus and the smaller for the storage of [illegible] and disinfecting material. The disinfecting plant consists of [illegible] a steam [illegible] cylindrical steam disinfecting chamber [illegible] by [illegible] feet, with a formaldehyde [illegible] attached [illegible] three autoclaves [illegible] thirty-three sulphur pots, and [illegible] with the necessary suction and discharge hose.

[illegible] what is known as the "shore disinfecting plant" and at present [illegible] for the disinfection of baggage.

The [illegible] disinfecting [illegible] consists of the barge [illegible] a vessel of about [illegible] equipped for the disinfection of vessels, baggage, etc., according to [illegible] modern and approved methods. Its equipment, in brief, is as follows: A [illegible] Sturtevant fan and engine [illegible] a large steam boiler with feed [illegible] and [illegible] cylindrical steam disinfecting [illegible] formaldehyde generator attached. The above machinery is [illegible] deck of the barge [illegible] so as to afford protection from the weather. [illegible]

[illegible]

[illegible]

[illegible] Acting Asst. Surg. [illegible] U. S. Marine-Hospital Service, in charge.

[illegible] Acting Asst. Surg. [illegible] U. S. Marine-Hospital Service, in charge.

[illegible] Acting Asst. Surg. [illegible] U. S. Marine-Hospital Service, in charge.

The crews of the disinfecting barge *Guardian* and the launch *McAdam*, besides the duties assigned to them in the above list, unite to form the disinfecting crew when a vessel is to be disinfected.

The methods of "in quarantine" at all the ports in the second quarantine division are the same as those employed at national quarantine stations in the United States. Practically all vessels are inspected on arrival, but those coming from foreign ports or from infected or suspected ports, whether foreign or domestic, are carefully inspected on arrival by the quarantine officer or his deputy, in accordance with the provisions of the quarantine regulations of the U. S. Marine-Hospital Service bearing upon the subject, and if everything connected with the vessel, its cargo, passengers, and crew is found correct, the vessel is given a certificate of free pratique and turned over to the custom-house authorities.

If there is any reason to suppose that the vessel may endanger the public health, it is disinfected and held in quarantine for the requisite period of time according to the disease under consideration. Should an infected or suspected vessel arrive at one of the subports, it would be remanded at once to the Matanzas quarantine station for treatment, as before stated.

The Matanzas quarantine station is incomplete, in so much as there are no facilities under the immediate control of the Service for the detention of persons under observation or for the treatment of the sick. In ordinary cases the city lazaretto is available for the care of the sick, and an abandoned fort on the south shore of the harbor, abreast of the anchorage of the barge *Guardian*, can be utilized for the detention of a limited number of persons. If the number of persons to be detained or sick to be treated be too great to be handled here, the vessel would be remanded to the Mariel quarantine station.

For "out quarantine" purposes the following measures are taken:

Bills of health are issued by the quarantine officer to all outgoing vessels.

Vessels bound for the United States or its outlying territories, or for noninfected Cuban ports not connected by rail with an infected focus, are inspected before departure to insure, as far as possible, that the vessel, cargo, passengers, and crew are free from infection. If the vessel is bound for a port south of the southern boundary of the State of Maryland, and the vessel expects to arrive at such port within ten days, the vessel may be disinfected at Matanzas before departure, thus utilizing the time in transit as quarantine detention time. The method of disinfecting vessels at this port is the same as that practiced at all national quarantine stations and according to the quarantine regulation issued for the purpose.

A passenger leaving for the United States or its outlying territories or for noninfected Cuban ports not connected by rail with an infected focus, must obtain a certificate of health from the quarantine officer, without which he can not board the vessel. This certificate must certify as to the health of the passenger at the time of sailing and to the fact that he is protected from smallpox by vaccination or a previous attack of the disease, and, if there is sufficient evidence to that effect, that he is immune to yellow fever. The baggage of passengers destined for the above-mentioned points is inspected and, if necessary, disinfected and labeled accordingly. The label, besides stating the action taken with the baggage, must show the name of the place where it was handled, the date, and the seal of the quarantine officer.

Baggage bound for points south of the southern boundary of the State of Maryland is invariably disinfected during the close quarantine season. North of that line it is usually simply inspected and passed unless there is reason to believe that it has been exposed to infection, in which case it is disinfected. When necessary, baggage is sealed, so as to prevent the danger of reinfection in transit. During the period covered by this report no complaint or claim has been received by this office for baggage damaged in the process of disinfection, and, as far as I am aware, none has been damaged. Judging from the mortality reports, the sanitary condition of the ports within the second quarantine division may be considered good. This is especially true as referring to Matanzas and Caibarien, both ports giving a low death rate, that of the former being 18.72 and the latter 15.26 per 1,000. This mortality compares favorably with that of most towns of corresponding size in other parts of the world. The death rate of Cardenas, while somewhat higher, 22.24 per 1,000, shows a marked improvement over the previous year, when it amounted to 27.91. Sagua makes quite a fair showing, with a mortality of 20.24 per 1,000.

Sixteen cases of yellow fever were reported during the fiscal year in the ports included within the second quarantine division. The following table shows the distribution of the cases as to date, place, and number:

[Inclosure No. 4.]

Transactions of passenger department from September 16, 1900, to and including June 30, 1901.

Month.	Inspected.	Vaccinated.	Immunes accepted.	Immunes rejected.
1900.				
September	374	28	182	42
October	748	66	212	69
November	982	50	136	38
December	2,141	156	.....	.....
Total	4,245	300	530	149
1901.				
January	1,595	102	.....	.....
February	2,012	87	.....	.....
March	2,926	69	.....	.....
April	2,065	41	9	7
May	1,280	6	222	40
June	1,548	3	484	39
Total	11,426	308	715	86

[Inclosure No. 5.]

Mortuary statistics, September 16, 1900, to June 30, 1901.

	1900.				1901.					
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Yellow fever	31	74	53	21	9	6	2	.....	.....	.....
Typhoid	5	5	7	4	3	1	10	10	16	15
Diphtheria	.....	2	2	2	.....	1	4	3	1	.....
Glanders	1	1	.....	2	2	2	2	1	.....	1
Scarlet fever	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Malaria	11	25	8	18	12	15	10	.....	17	.....
Measles	.....	.....	.....	1	1	.....	.....	.....	.....	1
Tuberculosis	35	73	56	68	96	62	78	87	69	55
Enteritis	15	38	28	40	56	52	122	143	137	154
Meningitis	.....	24	.....	28	30	18	49	38	.....	5
Cancer	.....	7	.....	12	10	11	16	15	22	10
All causes	258	507	440	485	476	408	557	565	517	498

[Inclosure No. 6.]

Transactions of the shore disinfecting plant from September 16, 1900, to June 30, 1901.

	1900.				1901.					
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.
Baggage inspected	920	405	1,060	1,277	2,380	4,186	6,222	5,132	3,734	3,845
Freight inspected	34	4,684	3,579	3,291	1,421	1,033	814	1,532	2,886	3,267
Express inspected	.....	344	185	91	119	46	72	37	113	91
Total	954	5,433	4,824	4,659	3,920	5,265	7,108	6,701	6,723	12,204
Baggage disinfected	769	1,002	456	1,193	690	372	549	574	2,422	865
Freight disinfected	442	442	1,021	116	3	.....	.....	2	44	309
Express disinfected	70	123	26	59	37	12	13	4	17	7
Mail disinfected	41	59	42	7	.....	.....	.....	.....	.....	.....
Total	1,322	1,626	1,545	1,375	730	384	562	580	2,483	1,173
To be disinfected	.....	9	51	148	79	9	7	46	76	123
Total handled	2,276	7,068	6,420	6,182	4,729	5,658	7,677	7,327	9,282	13,500

STEAM LAUNCH MCADAM AND DISINFECTING BARGE GUARDIAN, MATANZAS, CUBA

[illegible] and quarantine [illegible] during the fiscal year [illegible]

[illegible]	Matanzas	Cardenas	Sagua	Caibarien
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] that it will be noticed that the last case of yellow fever reported [illegible] Matanzas on January [illegible] The Cardenas and Sagua [illegible] which prevailed among the troops [illegible] the Matanzas cases the source of infec[illegible] Havana. Two cases of typhus [illegible] Matanzas [illegible] hospital on August 24, [illegible] was convalescent, but his [illegible] that the diag[illegible] Cardenas by two of the [illegible] A personal investi[illegible] typhus fever.

[illegible] cases were reported during the fiscal year.

[illegible] the operation of the Service during [illegible] diagnoses [illegible] the [illegible] They are given as reported by [illegible]

[illegible] that Cardenas and Sagua show a larger [illegible] important port of Matanzas. This is due to the [illegible] Sagua there is a large coasting trade carried on by a [illegible] Matanzas has little coasting trade, and that [illegible] This [illegible] would make [illegible] estimate that presented [illegible]

[illegible] the relative [illegible] yellow fever in Matanzas for the years [illegible] it will be seen that [illegible] the general [illegible] fever [illegible] than [illegible]

[illegible]

[illegible] Marine Hospital Service.

[illegible] present of the Matanzas quarantine station is adequate for the present [illegible] expected of it, except in a few minor details [illegible] and its equipment may be described as follows:

[illegible] Under the old regime this building was occupied by the [illegible] but shortly after the American occupation it was transferred to the Marine Hospital Service by the U. S. Military Government. Although in a [illegible] condition, it is admirably situated for its present purposes, [illegible] directly on the bay and commanding a splendid view of the [illegible] in my report of the operations of the Service for the fiscal year ended [illegible] a new building should be erected on this site as soon as it is practi[illegible]

[illegible] are situated immediately back of and adjoining the other [illegible] a rectangular frame structure [illegible] feet 2 inches long by [illegible] feet [illegible] inches [illegible] and divided by a partition into two unequal parts, [illegible] occupied by the disinfecting apparatus and the smaller for the storage [illegible] the disinfecting material. The disinfecting plant consists of a steam [illegible] chamber [illegible] by [illegible] feet, with a [illegible] attached [illegible] three autoclaves [illegible] thirty-three sulphur pots, and [illegible] with the necessary suction and discharge hose.

[illegible] what is known as the "shore disinfecting plant" and at present [illegible] for the disinfection of baggage.

[illegible] floating plant consists of the large [illegible] equipped for the disinfection of vessels, baggage, etc., according to [illegible] and approved methods. Its equipment in brief is as follows: A [illegible] steam engine for [illegible] large steam [illegible] with feed [illegible] and [illegible] steam disinfecting [illegible] generator attached. The above machinery is [illegible] back of the large [illegible] to afford protection [illegible] weather. There is also a set of [illegible] hose, [illegible] from the sulphur furnace, with three [illegible] In the hold of the vessel [illegible] large [illegible] are [illegible] the other [illegible] The [illegible] at a [illegible] large [illegible] with [illegible] at the same [illegible] in rough weather in keeping the [illegible] vessel [illegible] in resisting [illegible] damage [illegible] having a [illegible] with the [illegible] the large and the vessel [illegible] disinfected. [illegible] Young, U. S. Navy, captain of the port of Havana, [illegible] have failed to [illegible] that they [illegible]

[illegible] M. [illegible] and [illegible] large [illegible] frequently [illegible] feet [illegible] feet [illegible] The [illegible] free [illegible] what [illegible] The M. [illegible] is equipped with a [illegible] equipment in engine

[illegible]

M. [illegible] P. A. Surg. G. M. [illegible], U. S. Marine Hospital Service, [illegible] District. Acting Asst. Surg. [illegible] U. S. Marine Hospital Service, [illegible] assistant. Richard P. [illegible] Marine Hospital Service, [illegible] M. [illegible] and [illegible] disinfecting plant. Marine Hospital Service, [illegible] and Marine Hospital Service, [illegible] M. [illegible] Marine Hospital Service, [illegible]

[illegible] Marine Hospital Service, [illegible] and quarters [illegible] assistant watchman and quarters [illegible] M. [illegible] Marine Hospital Service, [illegible] Marine Hospital Service, [illegible] Acting Asst. Surg. [illegible] Marine Hospital Service, [illegible] charge.

[illegible] Acting Asst. Surg. [illegible] Marine Hospital Service, [illegible] charge.

[illegible] Acting Asst. Surg. [illegible] U. S. Marine Hospital Service, [illegible] charge.

Nativity:	
Cuba	664
Spain	83
Africa	23
Asia	21
Other country	16
Not specified	41
Total	848
State:	
Single	312
Married	125
Widowed	71
Not specified	340
Total	848
Sex:	
Male	454
Female	394
Total	848
Age:	
From 0 to 1 year	209
From 1 to 10 years	59
From 10 to 20 years	65
From 20 to 30 years	1[illegible]
From 30 to 40 years	93
From 40 to 50 years	92
From 50 to 60 years	78
From 60 to 70 years	57
Over 70 years	55
Not specified	39
Total	848

[Inclosure No. 5.]

TABLE V.—*Comparative statement of mortality for the city of Matanzas for the years 1898 to 1901.*

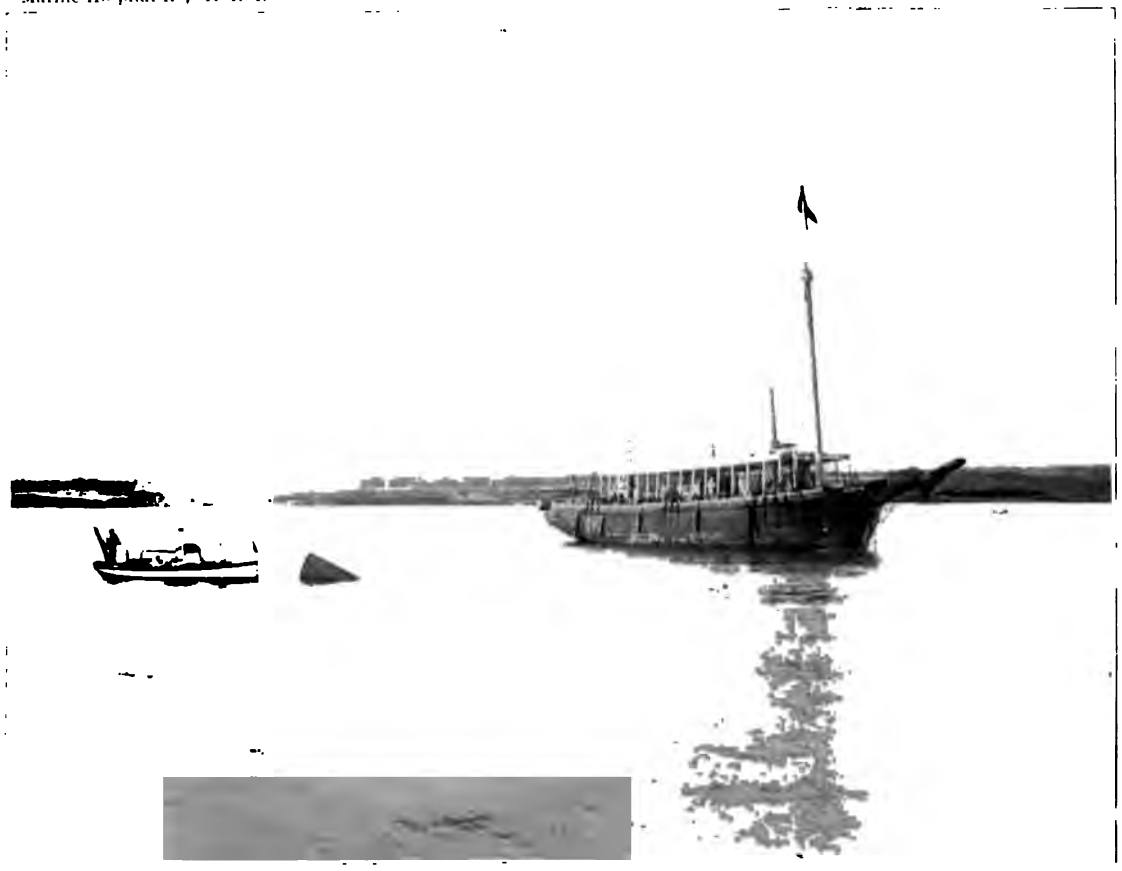
Month.	1898.	1899.	1900.	1901.
January	772	323	98	[illegible]
February	564	256	87	[illegible]
March	385	205	107	[illegible]
April	302	138	68	[illegible]
May	317	127	79	[illegible]
June	316	118	63	[illegible]
July	378	118	98	.....
August	508	113	72	.....
September	712	100	69	.....
October	688	72	66	.....
November	591	88	61	.....
December	449	95	53	.....
Total	5,982	1,753	911	377
Rate per 1,000	121.80	44.52	20.11	[illegible]

[Inclosure No. 6.]

[illegible] mortality municipal district of Cardenas for the fiscal year of 1900-1901.

Diseases	July	August	September	October	November	December	January	February	March	April	May	June	Total
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

25145—03——24



STEAM LAUNCH McADAM AND DISINFECTING BARGE, GUANDIAN, MATANZAS, CUBA.

[illegible] reported in the second quarter [illegible] by the health officers [illegible]

State	Matanzas	[illegible]	[illegible]	[illegible]
1900				
[illegible]				
[illegible]				
[illegible]

[Inclosure No. 1.]

TABLE I.—*General statistics of the operations of the Service from September 16, 1900, to June 30, 1901.*

INWARD.

	Matanzas.	Cardenas.	Sagua.	Caibarien.
Passengers inspected	3,248	380	2,031	361
Vessels inspected and passed	246	256	452	81
Vessels passed without inspection	34	261	90	280
Pieces of baggage inspected and passed	.....	153	.....	.....
Pieces of baggage passed without inspection	.....	227	.....	.....
Gross tonnage of vessels	552,932	304,165	355,842	299,617
Number of crew inspected and passed	7,501	5,959	9,833	1,182

[Inclosure No. 2.]

TABLE II.—*General statistics of the operations of the Service from September 16, 1900, to June 30, 1901.*

OUTGOING.

	Matanzas.	Cardenas.	Sagua.	Caibarien.
Passengers inspected	1,885	160	1	381
Passengers vaccinated	14	7	.....	.....
Vessels inspected and passed	156	.....	35	17
Vessels passed without inspection	145	528	480	264
Vessels disinfected	21	.....	.....	.....
Vessels cleared	301	528	515	281
Pieces of baggage inspected and passed	897	.....	1	.....
Pieces of baggage passed without inspection	225	168	.....	.....
Pieces of baggage disinfected	194	.....	.....	.....
Bundles of clothes and bedding disinfected	364	.....	.....	.....
Gross tonnage of vessels	547,037	305,369	355,442	298,091
Number of crew inspected and passed	7,484	6,023	469	284

[Inclosure No. 3.]

TABLE III.—*General mortality, municipal district of Matanzas, for the fiscal year 1900–1901.*

Diseases.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Typhoid fever	2	....	2	1	1	....	....	....	1	1	....	1	9
Typho-malarial fever	....	....	1	....	1	1	....	1	....	....	....	1	5
Malarial fever	6	13	6	6	2	2	2	3	2	1	6	3	52
"Fiebre de borras"	....	1	....	....	....	....	....	....	....	....	....	....	1
Yellow fever	1	1	....	1	5	1	1	....	....	....	....	....	10
"Infectious fever"	2	....	....	1	....	....	....	....	....	....	....	....	3
Grippe	1	....	....	....	2	....	....	1	1	....	....	....	5
Diphtheria	2	....	....	....	....	....	1	....	....	....	....	....	3
Septicemia	....	....	1	....	....	....	....	....	1	1	2	....	5
Pneumonia	....	....	....	....	....	1	....	1	....	....	....	....	2
Colo-enteritis	1	2	....	2	1	1	2	2	2	....	1	1	15
Dysentery	3	1	1	....	....	1	....	....	....	....	....	....	6
Tuberculosis	19	11	17	15	14	13	17	8	16	13	17	13	173
Tetanus, traumatic	1	2	....	1	....	....	....	2	....	....	1	....	7
Tetanus, infantile	5	6	5	3	4	4	6	1	4	3	3	2	46
Syphilis	....	....	....	....	....	....	....	....	....	2	....	....	2
Scrofula	....	....	....	....	1	....	....	....	....	....	....	....	1
Diabetes	....	....	....	....	....	....	....	....	....	....	1	....	1
Carcinoma	1	....	2	3	1	....	1	3	3	1	2	2	19
Chlorosis	....	....	....	1	....	....	1	1	....	....	....	....	3

TABLE III. *General mortality, municipal district of Milwaukee, for the fiscal year 1900–1901.* Continued.

Diseases	July	August	September	October	November	December	January	February	March	April	May	June	Total
Stillbirth									1		1		2
Premature birth	1	1	2		2			1				1	8
Congenital debility	2	1	1	1	1	1	2	1	1	1	1	1	14
Congenital debility in children	1	2	1		2	2		1	1	1	1	1	13
Debility	2		1	1	2	1	1	2	1	2	1	1	15
Abandonment							1						1
Starvation								1					1
Contusion			1										1
Burned or scalded			1			1							2
Gunshot wound	2		2	1			1					1	7
Asphyxia by drowning		1		1	1		1	1					5
Asphyxia by hanging		2											2
Shock, traumatic	1	1											2
Endocarditis				1		1							2
Valvular heart disease	2	5	2	6	1	5	6	4	1	5	6	4	43
Angina pectoris		1				1		1					3
Atheroma											1		1
Arterio-sclerosis		2		1	1	1	4	2		1	2	1	15
Gangrene, senile	1		1		1							1	4
Hemorrhage from umbilical cord											1		1
Cyanosis		1		1									2
Icterus											1		1
Bronchitis	1	2					1	1	1	1	1		8
Bronchopneumonia	2	1	1	2			1	2	4	1	1	1	17
Pulmonary congestion			1	1	2			1				1	6
Pleurisy										1			1
Pleuritis		1											1
Gastric catarrh									1				1
Gastritis		1											1
Dysentery								1					1
Enteritis	14	7	5	4	4	4	4	1		2	1	1	47
Hepatitis										1			1
Intussusception	1		1									1	3
Lithiasis	1											1	2
Hernia													1
Chronic diarrhœa	1		1		1		1						4
Undetermined bowel		1	1	1									4
Lesion of the spinal cord			1						1				2
Lesion of the medulla													1
Congestion (cerebral)	1		1	1	1		1						6
Hemorrhage (cerebral)	1	1	1	1		1	1				1		8
Softening of the brain		1									1	1	3
Meningitis	1	1	1		1		1		1		1	1	8
Spasms			1		1						1		3
Convulsions				1		1	1	1	1	1	1		8
Hemiplegia (brain)	1							1					2
Chorea											1		1
Epilepsy		1			1								2
Hysteria		2	2	1	1		1	1	1	1	1	1	12
Paralysis		1			1	1							3
Burns			1							1			2
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Population													[illegible]
Annual death rate per 1,000													[illegible]

TABLE IV. *Mortality statistics for the fiscal year 1900–1901, for the municipal district of Milwaukee.*

Race	
White	[illegible]
Black	[illegible]
Mixed	[illegible]
Asiatic	[illegible]
Not specified	[illegible]
Total	[illegible]

Nativity:	
Cuba	664
Spain	83
Africa	23
Asia	21
Other country	16
Not specified	41
Total	848
State:	
Single	312
Married	125
Widowed	71
Not specified	340
Total	848
Sex:	
Male	454
Female	394
Total	848
Age:	
From 0 to 1 year	209
From 1 to 10 years	59
From 10 to 20 years	65
From 20 to 30 years	1
From 30 to 40 years	53
From 40 to 50 years	92
From 50 to 60 years	78
From 60 to 70 years	57
Over 70 years	55
Not specified	39
Total	848

[Inclosure No. 5.]

TABLE V.—*Comparative statement of mortality for the city of Matanzas for the years 1898 to 1901.*

Month.	1898.	1899.	1900.	1901.
January	772	323	98	69
February	564	256	87	52
March	385	205	107	69
April	302	138	68	51
May	317	127	79	76
June	316	118	63	66
July	378	118	93	.....
August	508	113	72	.....
September	712	100	69	.....
October	688	72	66	.....
November	591	88	61	.....
December	449	95	53	.....
Total	5,982	1,758	911	377
Rate per 1,000	121.80	44.52	20.11	16.65

[Enclosure No. [illegible]

TABLE VI.—General mortality [illegible] [illegible] [illegible] [illegible]

Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Typhoid fever	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]				[illegible]	[illegible]
Intermittent fever	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]					[illegible]
Remittent fever	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]					[illegible]
Tetanus			[illegible]									[illegible]
Whooping cough	[illegible]											[illegible]
Septicæmia and pyæmia				[illegible]	[illegible]							[illegible]
Influenza								[illegible]				[illegible]
Erysipelas												[illegible]
Diphtheria and croup	[illegible]											[illegible]
Septicæmia		[illegible]	[illegible]		[illegible]							[illegible]
Hydrophobia												[illegible]
Tuberculosis of lungs		[illegible]		[illegible]								[illegible]
Tuberculosis [illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]
Tuberculosis [illegible]		[illegible]				[illegible]						[illegible]
Tuberculosis [illegible]		[illegible]	[illegible]				[illegible]					[illegible]
Cancer in stomach						[illegible]						[illegible]
Tumors of the [illegible]	[illegible]		[illegible]				[illegible]					[illegible]
Cancer and other malignant tumors of [illegible]					[illegible]							[illegible]
Cancer and other malignant tumors [illegible]		[illegible]		[illegible]	[illegible]							[illegible]
Tumors [illegible]			[illegible]					[illegible]	[illegible]			[illegible]
Anæmia		[illegible]				[illegible]						[illegible]
Other [illegible]								[illegible]				[illegible]
Rheumatism	[illegible]		[illegible]									[illegible]
Bronchitis					[illegible]	[illegible]				[illegible]		[illegible]
Pneumonia	[illegible]				[illegible]					[illegible]		[illegible]
Diseases of the [illegible]												[illegible]
Cerebral hemorrhage	[illegible]											[illegible]
Cerebral [illegible]												[illegible]
Diseases of the [illegible]												[illegible]
Other diseases of the [illegible]												[illegible]
Diseases of the [illegible]												[illegible]
Other

[Inclosure No. 7.]

TABLE VII.—*Mortality of the municipality of Cardenas for the fiscal years 1895–96 to 1900–1901.*

Fiscal years.	Deaths.	Death rate.
1895–96	837	33.67
1896–97	2,450	98.55
1897–98	2,455	98.75
1898–99	1,609	64.72
1899–1900	694	27.91
1900–1901	553	22.20

[Inclosure No. 8.]

TABLE VIII.—*General mortality of the municipal district of Sagua for the fiscal year 1900–1901.*

Alcoholism	5
General debility in children, and rickets	13
Heart diseases	30
Diseases of the liver	1
Diseases of the respiratory system	28
Cancer	8
Cerebral congestion and hemorrhage	11
Dysentery	6
Enteritis	53
Infectious enteritis	4
Yellow fever	1
Bilious fever	2
Infectious fever	6
Malarial fever	20
Pernicious fever	8
Typhoid fever	4
Inanition	1
Old age	7
Meningitis	5
Nervous disease	1
Violent death	2
Nephritis	7
Septicæmia	5
Tetanus, infantile	10
Uræmia	9
Cyanosis	2
Atrophy	2
Shock after operation	3
Bright's disease	2
Poisoning	2
Wound	2
Cerebral disease	11
Heart failure	4
Hernia	2
Paralysis	1
Asphyxia	3
Grippe	1
Myelitis	3
Tetanus, traumatic	2
Tuberculosis	91
Other causes	54
Total	432
Population	21,342
Annual death rate (per 1,000)	20.24

[illegible]

TABLE IX. General mortality of the municipal district of [illegible] for the [illegible] 1902.

[illegible]

TABLE X. Mortality of [illegible]

[illegible]

SUPPLEMENTAL REPORT FROM MATANZAS.

MARINE-HOSPITAL SERVICE,
Matanzas, Cuba, September 23, 1901.

SIR: Through the chief quarantine officer for the island of Cuba, and in accordance with instructions contained in Bureau letter of July 18, 1901, I have the honor to submit herewith a supplementary report of the transactions of the Service in the second quarantine division of the island of Cuba for the period from July 1 to September 15, 1901, both dates inclusive.

Tables I and II give a general summary of the work of the division. Nothing of special note has occurred during the period covered by this report. The health of the ports comprised within the division has been good, although not so much so as during the same period of the preceding year, 1900. From Table VII it will be seen that the death rate of Matanzas, Sagua, and Caibarien has increased when compared with that for the same period of last year, Cardenas alone showing improvement. Caibarien shows an enormous increase, but it is evident that last year's figures were incorrect and based on faulty information. No quarantinable diseases have been reported except in Matanzas, where 3 cases of yellow fever have been treated, 1 terminating fatally. Two of these cases were brought from a plantation at some distance from the city, the origin of the infection being undoubtedly Habana. In the third and fatal case the source of the infection could not be traced. All these cases were treated at the civil hospital, which institution is now provided with a mosquito-proof ward for the treatment and isolation of cases of yellow fever or those suspected of being such.

In accordance with orders from the chief quarantine officer the medical officers in charge of the subports of Cardenas and Caibarien have been detailed to Habana at different times for a period of three or four weeks to receive practical instruction in the technique of disinfection and quarantine measures in general. These officers were relieved during their stay in Habana by one of the staff of the chief quarantine officer. It is proposed to order the officer in charge of the station at Isabela de Sagua to Habana for the same purpose as soon as practicable. These details have been of great value in giving these officers a practical knowledge of quarantine matters at the best school in existence for the purpose, and will no doubt yield gratifying results.

Tables III to VI give the mortality statistics for the period covered by this report for the municipal district of the port of Matanzas and the subports within the second quarantine division of Cuba.

Attention is invited to the fact that the data for making up the mortality tables have been obtained from the records of the civil authorities and that this office is not responsible for the nomenclature of diseases used in said tables.

Respectfully,

G. M. GUITERAS,
Passed Assistant Surgeon, U. S. Marine-Hospital Service, in Command.

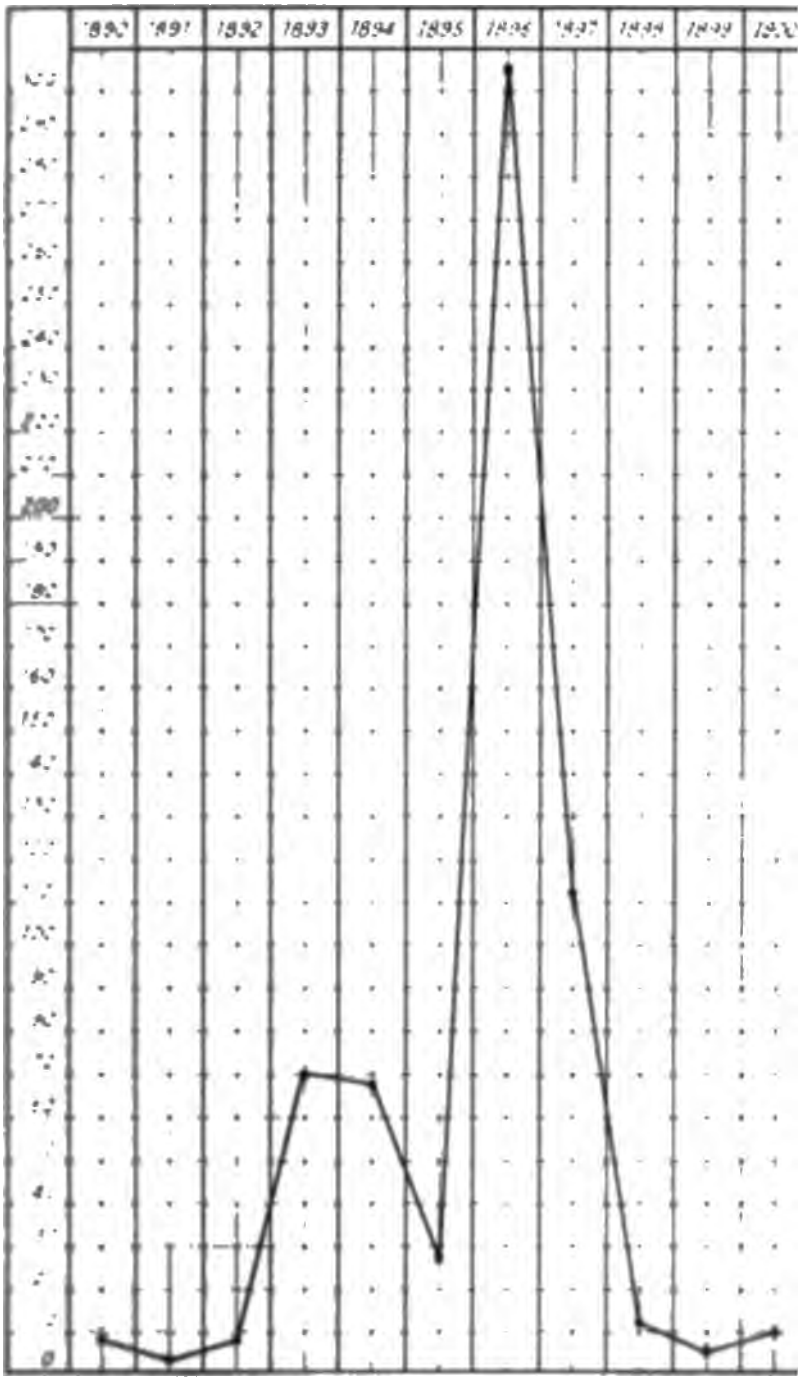
The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Inclosure No. 1.]

TABLE I.—*General statistics of the operations of the Service from July 1 to September 15, 1901.*

INWARD.

	Matanzas.	Cardenas.	Sagua.	Caibarien.
Passengers inspected	432	177	107	29
Passengers passed without inspection	7	.....	.....	.....
Vessels inspected	48	62	20	4
Vessels passed without inspection	23	97	101	92
Pieces of baggage disinfected	.....	.....	3	.....
Crew inspected	1,458	1,220	569	30
Crew passed without inspection	152	.....	.....	.....
Gross tonnage of vessels	85,673	90,915	96,147	59,491


1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900

[Inclosure No. 2.]

TABLE II.—*General statistics of the operations of the Service from July 1 to September 15, 1901.*

OUTGOING.

	Matanzas.	Cardenas.	Sagua.	Caibarien.
Passengers inspected	351	132	6	[illegible]
Passengers passed without inspection	185	25	.....	[illegible]
Passengers vaccinated	6	.....	.....	.....
Vessels inspected and passed	28	49	9	[illegible]
Vessels passed without inspection	47	112	110	[illegible]
Vessels disinfected	13	.....	.....	.....
Pieces of baggage inspected and passed	400	.....	.....	.....
Pieces of baggage disinfected	18	.....	.....	.....
Crew inspected	597	1,121	106	[illegible]
Crew passed without inspection	1,044	6,909	.....	.....
Gross tonnage of vessels	88,649	91,015	106,679	[illegible]
Certificates of protection from smallpox issued	326	.....	.....	.....
Health and acclimation certificates issued	22	64	.....	.....

[Inclosure No. 3.]

TABLE III.—*General mortality, municipal district of Matanzas, from July 1 to September 15, 1901.*

Scarlet fever	1
Typhoid fever	5
Typho-malarial	2
Malarial fever	10
"Fiebre de borras"	2
Yellow fever	1
Puerperal fever	1
Intestinal tuberculosis	3
Cholera infantile	3
Tuberculosis	35
Tetanus infantile	13
Carcinoma	2
Rickets	1
Congenital debility	5
General debility in children	6
Marasmus	1
Senility	6
Alcoholism	2
Intoxication	1
Incised wound	2
Shotgun wound	2
Carcinoma	2
Valvular lesion	5
Arterio-sclerosis	8
Gangrene senile	1
Bronchitis	2
Pneumonia	3
Pulmonary congestion	2
Enteritis	41
Hepatitis of the liver	1
Cyanosis	3
Cerebral congestion	1
Cerebral hemorrhage	4
Meningitis	3
Eclampsia	2
Nephritis	12
Uræmia	2
Fracture of the skull	1
Fracture of bone	1
Epithelioma	2
Complicated labor	1
Disease of the aorta	1

Streptococcus	1
Pneumococcus	1
Heart disease	3
Pulmonary embolus	1
Catarrhal jaundice	1
Multiple neuritis	1
Atheroma	1
Total	211
Population	45,262
Death rate per 1,000	22.37

Inclosure No. 4

TABLE IV.—General mortality, municipal district of Cardenas, from July 1 to September 15, 1901.

Typhoid fever	3
Intermittent fever	1
Malarial fever	2
Diphtheria	1
Dysentery	1
Leprosy	1
Pulmonary tuberculosis	20
Tuberculosis of other organs	1
Cancer	
Of uterus	2
Of other organs	1
Septicemia	1
Meningitis	4
Congestion and hemorrhage of brain	5
Paralysis, general	1
Endocarditis	1
Heart, organic and valvular	11
Arteries, diseases of circulatory system	2
Hemorrhages circulatory system	3
Other diseases circulatory system	1
Bronchitis	1
Bronchopneumonia	2
Cirrhosis liver	1
Dysentery	
Less than 2 years	16
Children	3
Over 2 years	4
Acute jaundice	1
Cirrhosis of liver	3
Peritonitis	2
Other diseases of digestive system	1
Appendicitis	1
Nephritis	2
Other diseases of urinary system	3
Diseases of the new born	5
Senility	2
Tetanus	1
Total	112
Population	24,[illegible]
Death rate per 1,000	21.51

Inclosure No. 5

TABLE V.—General mortality, municipal district of Sagua, from July 1 to September 15, 1901.

Meningitis	5
Cerebral hemorrhage	1
Tetanus, infantile	

Myelitis, chronic	1
Paralysis, infantile	1
Pulmonary tuberculosis	25
Bronchitis, acute	1
Heart disease	12
Cyanosis	2
Intestinal diseases	25
General debility in children	5
Dysentery	2
Cholera, infantile	1
Infectious diarrhea	1
Intestinal occlusion	1
Peritonitis	1
Congenital debility	1
Hematophilia	1
Senility	1
Malarial cachexy	1
Cancer of the stomach	1
Typhoid fever	1
Infectious fever	4
Puerperal fever	1
Pernicious fever	2
Pneumonia	2
Tabes mesenterica	1
"Fiebre comatosa"	1
Total	106
Population	21,342
Death rate (per 1,000)	23.84

[Inclosure No. 6.]

TABLE VI.—*General mortality, municipal district of Caibarien, from July 1 to September 15, 1901.*

General debility in children	5
Arterio-sclerosis	1
Cancer of the stomach	1
Cirrhosis of the liver	1
Congenital debility	1
Cerebral anæmia	1
Eclampsia	3
Gastro-enteritis	2
Cerebral hemorrhage	1
Heart disease	1
Hydrohæmia	1
Peritonitis, acute	1
Typho-malarial	1
Tuberculosis of the lungs	1
Typhoid fever	1
Intestinal infections	5
Pernicious fever	2
Malarial fever	1
Uræmia	1
Unknown	1
Total	32
Population	8,650
Death rate (per 1,000)	17.75

[illegible]

TABLE VII. [illegible]

	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

TABLE VIII. [illegible]

	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

[illegible]

SURVEYS AND SUBSIDIES

[illegible] TRANSACTIONS OF THE [illegible] SURVEYS AND THE SUBSIDIES [illegible] THE [illegible] GRANTING [illegible] YEAR [illegible] SEPTEMBER [illegible] SUPPLEMENTAL REPORT [illegible] TRANSACTIONS [illegible] JUNE [illegible] SEPTEMBER [illegible] INCLUSIVE.

By Acting Assistant Surgeon [illegible] W. [illegible]

[illegible]

[illegible] I have the honor to transmit [illegible] the transactions of this [illegible] relating to the period from September [illegible] to June [illegible] inclusive.

There have been no changes in the organization of the station, which has been kept in good repair. It consists of the old frame building, [illegible] feet long, [illegible] feet wide, [illegible] stories high, with [illegible] wards, [illegible] kitchen, [illegible] bathrooms, [illegible] and [illegible] water closets. A supply of [illegible] is kept on hand for the use of the [illegible] Marine Hospital Service and the [illegible] vessel lying partially off for that purpose. The [illegible] water front [illegible] to the [illegible] to the traveling public [illegible] baggage. All persons leaving the port during the year have been [illegible] from the office showing in what legal [illegible] the different quarantine [illegible]

All vessels arriving at the port are [illegible] the [illegible] of health and [illegible] the passengers [illegible] ports and [illegible] and [illegible] port [illegible] [illegible] and [illegible] of the [illegible] [illegible] baggage for the port is examined and [illegible] and have the usual showing [illegible] the [illegible] departure. If this [illegible] baggage [illegible] at the [illegible] examiner [illegible] is found [illegible] and [illegible] in [illegible] a supply of [illegible] kept on hand and [illegible] treated by the officers of the [illegible] Marine Hospital Service and the vessel is placed in quarantine and disinfected. In the subject [illegible] rough [illegible] the infected persons are removed, the compartments in which the disease [illegible] are disinfected, and the vessel is ordered to the nearest [illegible]

disinfection can be completed. All baggage from this port is labeled "inspected and passed" unless it has been exposed to infection. In this event the baggage is disinfected and labeled "disinfected and passed" and sealed to prevent opening before arriving at destination.

For boarding vessels the steam launch *Prochazka*, with a crew of 4 men, is kept in commission. As described in my report last year, the *Prochazka* is a vessel 70 feet in length with 10 feet beam. No smaller vessel would answer for the purpose so well, as the anchorage of some vessels is 6 or 7 miles out, and at times the bay becomes very rough. This vessel has been in service at this place since January 24, 1900, and has demonstrated the wisdom of her purchase, as no repairs have been required other than the replacing of a nut on one cylinder rod and the correction of a bend in one propeller blade.

During the period 307 vessels arrived at this port and were inspected and passed, and 327 bills of health were issued to vessels leaving this port. Two thousand one hundred and fifteen passengers arrived at this port. Of these, 735 arrived on the Munson Line from New York. Two thousand four hundred and seventy-one certificates of health and protection by vaccination were issued to passengers leaving this port. Of these, 484 were to passengers for New York by the Munson Line. All baggage for the United States is inspected and labeled, and all that is for points south of Maryland is disinfected.

All persons not protected by previous vaccination have been vaccinated at this office. There have been 23 vaccinations.

Only 11 alien steerage passengers have been registered at this port, but a great many of that class have landed here by coastwise vessels, having entered at Habana.

Of immigrants landed at this port, in my opinion, there have really been none. While most of the passengers arriving by the Munson Line have been Americans and Canadians who have invested in the land and steamship companies, none that I have seen have expressed an intention to renounce their citizenship in the above countries, and not one has taken steps to acquire Cuban citizenship. In fact, a large portion of these colonists have already returned home, and all have been induced to make investment of small amounts here in the hope of such return as would enable them to live in comfort elsewhere.

While the number of pieces of baggage has not been kept, all have been inspected, and 156 pieces from Habana have been disinfected by steam or formalin. The sanitary condition of the town has been constantly improving under the supervision of the military authorities. It will now compare favorably with towns of the same size in the United States. The streets have been graded and are swept daily, and, as a consequence, the health of the population is much better.

Seventy-six deaths only have been registered during the year, giving a rate of about 15 per 1,000 of estimated population, the deaths of the last six months of 1900 being 39, as against 70 for the first six months, and the number for the six months ended June 30, 1901, being 37.

There were only 2 cases of yellow fever reported during the year—1 discovered on the steamship *Julia*, in October, 1900, at Gibara, and removed by Acting Assistant Surgeon Gomez to isolated quarters, and 1 treated at this place in December, 1900.

No other cases of quarantinable diseases have been reported at any point in the district. A constant inquiry has been made for suspicious cases, with instructions to immediately report to the chief quarantine officer any that were discovered.

I have delayed forwarding this report expecting to inclose reports from the subports, but as these have not been received, they will be forwarded as soon as received.

Respectfully,

OWEN W. STONE,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Supplemental report.

NUEVITAS, CUBA, *September 15, 1901.*

SIR: I have the honor to submit the following report for the period from July 1 to September 15, 1901, inclusive:

Eighty vessels arrived at this port, with 2,583 men in crews; 567 passengers were disembarked; 81 bills of health were issued to vessels, with 2,650 men in crews; 504 certificates of health were issued to passengers embarking. Twenty-four deaths occurred during the above-named period, but there have been no cases of quaran-

[illegible] diseases, and no cases of the minor contagious or infectious diseases have been reported.

Four vessels clearing for Southern ports were disinfected at the station, and [illegible] articles of clothing and bedding belonging to them were disinfected by steam at the station plant. Fifty nine pieces of baggage from Habana were disinfected.

There has been sunshine with rain nearly every day. The temperature of the month has not been at any time higher than [illegible]. The sanitary conditions of the city have been about the same as here.

Respectfully,

OWEN W. [illegible],

Acting Assistant Surgeon, U. S. Marine Hospital Service.

The Surgeon-General, Marine-Hospital Service.

[illegible]

Marine Hospital Service,
[illegible]

Sir: I have the honor to submit the following report for the year ended [illegible]:

Three hundred and twenty five vessels arrived at the port during the year, [illegible] health were issued to vessels clearing from the port. [illegible] passengers [illegible] during the year and [illegible] passengers left the port. One hundred and eighty [illegible] were inspected during the year.

No [illegible] quarantine [illegible] were [illegible] vessels entering or clearing from, [illegible] and no cases have been reported in this town [illegible].

The sanitary condition of the town has been good.

Respectfully,

M. [illegible],

[illegible], U. S. Marine Hospital Service.

The Surgeon-General, Marine-Hospital Service.

[illegible]

Marine Hospital Service,
[illegible]

Sir: I have the honor to submit the following report of the transactions of the Marine Hospital Service at this station for the year ending [illegible] 30, 1901.

[illegible] vessels arrived at the port of [illegible] and [illegible] were inspected.

There were no cases of quarantinable diseases [illegible].

Respectfully,

M. [illegible],

[illegible], U. S. Marine Hospital Service.

The Surgeon-General, Marine Hospital Service.

[illegible]

[illegible]

Sir: Through the chief quarantine [illegible] I have the honor to submit the following report of the transactions [illegible] for the year ending June 30, 1901.

One hundred and forty three deaths occurred [illegible] during the year, covered by this report. Death rate per [illegible] has been excellent. There have been [illegible] reported during the year.

On [illegible] 13, 1900, the steamship [illegible] arrived from Nassau with a mixed class passenger [illegible] proved to be yellow fever and was removed as soon as possible [illegible]

The compartment was disinfected and ordered closed until the arrival of the vessel at Santiago de Cuba, at which port she would be thoroughly disinfected.

Four hundred and thirty-five vessels were inspected on arrival and granted pratique; 431 bills of health were issued vessels leaving the port; crews of incoming vessels inspected, 12,079; crews of outgoing vessels inspected, 12,218; passengers of incoming vessels inspected, 5,094; passengers of outgoing vessels inspected, 4,153; persons vaccinated, 35; alien steerage passengers landed, 251; health certificates issued passengers leaving the port, 2,153.

Respectfully,

S. GOMEZ,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Gibara, Cuba, September 16, 1901.

SIR: I have the honor to submit the following report of the transactions of the Marine-Hospital Service at this station for the period from July 1 to September 15, 1901, inclusive:

Eighty-six vessels arrived at this port, 87 bills of health were issued, and 19 deaths were reported.

There were no cases of quarantinable disease in the harbor or town during the period, nor at any time during the year.

Respectfully,

SALVADOR GOMEZ,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

PUERTO PADRE.

PUERTO PADRE, CUBA, *August 1, 1901.*

SIR: I have the honor to transmit, through the officer commanding the third district and the chief quarantine officer for the island of Cuba, the following report for the year ended June 30, 1901:

Two hundred and twenty-seven vessels arrived at this port during the year and were inspected and passed, and 225 bills of health were issued to vessels leaving this port; 1,303 passengers disembarked at this port during the year, and certificates of health were issued to 696 passengers leaving this port; 49 passengers, leaving, were vaccinated in this office; there were 19 deaths during the year.

The sanitary condition of the town has been good throughout the year, and there have been no cases of quarantinable disease.

Respectfully,

JOSE N. MACEO,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Puerto Padre, Cuba, September 16, 1901.

SIR: I have the honor to submit the following report of the transactions of the Marine-Hospital Service at this station for the period from July 1 to September 15, 1901, inclusive:

Sixty-five vessels arrived at this port during the period, 60 bills of health were issued, and 17 deaths were reported.

There were no cases of quarantinable disease reported during the period, nor at any time during the year.

Respectfully,

JOSE N. MACEO,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Inclosure No. 2.]

TABLE II.—*General statistics of the operations of the Service from July 1 to September 15, 1901.*

OUTGOING.

	Matanzas.	Cardenas.	Sagua.	Caibarien.
Passengers inspected	351	132	6	5
Passengers passed without inspection	185	25	.....	206
Passengers vaccinated	6	.....	.....	.....
Vessels inspected and passed	28	49	9	3
Vessels passed without inspection	47	112	110	85
Vessels disinfected	13	.....	.....	.....
Pieces of baggage inspected and passed	400	.....	.....	.....
Pieces of baggage disinfected	18	.....	.....	.....
Crew inspected	597	1,121	106	29
Crew passed without inspection	1,044	6,909	.....	.....
Gross tonnage of vessels	88,649	91,015	106,679	59,781
Certificates of protection from smallpox issued	326	.....	.....	.....
Health and acclimation certificates issued	22	64	.....	.....

[Inclosure No. 3.]

TABLE III.—*General mortality, municipal district of Matanzas, from July 1 to September 15, 1901.*

Scarlet fever	1
Typhoid fever	5
Typho-malarial	2
Malarial fever	10
"Fiebre de borras"	2
Yellow fever	1
Puerperal fever	1
Intestinal tuberculosis	3
Cholera infantile	3
Tuberculosis	35
Tetanus infantile	13
Carcinoma	2
Rickets	1
Congenital debility	5
General debility in children	6
Marasmus	1
Senility	6
Alcoholism	2
Intoxication	1
Incised wound	2
Shotgun wound	2
Carcinoma	2
Valvular lesion	5
Arterio-sclerosis	8
Gangrene senile	1
Bronchitis	2
Pneumonia	3
Pulmonary congestion	2
Enteritis	41
Hepatitis of the liver	1
Cyanosis	3
Cerebral congestion	1
Cerebral hemorrhage	4
Meningitis	3
Eclampsia	2
Nephritis	12
Uræmia	2
Fracture of the skull	1
Fracture of bone	1
Epithelioma	2
Complicated labor	1
Disease of the aorta	1

Streptococcus	1
Pneumococcus	1
Heart disease	3
Pulmonary embolus	1
Maternal jaundice	1
Multiple neuritis	1
Alcoholism	1
Total	211

Population	45,282
Death rate per 1,000	22.37

[illegible]

Table [illegible] [illegible] municipal district of Cleveland, from July [illegible] to September [illegible], 1907.

Typhoid fever	3
Scarlet fever	1
Malarial fever	2
Septicemia	1
Pyemia	1
Leprosy	1
Pulmonary tuberculosis	20
Tuberculosis of other organs	1
Cancer	
Of uterus	2
Of other organs	1
Acute [illegible]	1
Meningitis	4
Cerebral hemorrhage	5
Paralysis general	1
Epilepsy	1
Heart, organic and valvular	13
Arteries, diseases of circulatory system	2
Hemorrhage, circulatory system	3
Other diseases, circulatory system	1
Pneumonia	1
Pneumonia, [illegible]	2
Bronchitis	1
Diarrhea	
Less than 2 years	10
[illegible]	1
Over 2 years	4
Acute peritonitis	1
Cirrhosis of liver	1
Peritonitis	2
Other diseases of digestive system	1
Appendicitis	1
Nephritis	2
Other diseases of urinary system	3
Diseases of the new born	3
Suicide	2
Tetanus	1
Total	[illegible]

Population	[illegible]
Death rate per 1,000	[illegible]

[illegible]

Table [illegible] General mortality, municipal district of [illegible], [illegible] [illegible], 1907.

Meningitis	[illegible]
Cerebral hemorrhage	1
Tetanus, infantile	[illegible]

Myelitis, chronic	1
Paralysis, infantile	1
Pulmonary tuberculosis	25
Bronchitis, acute	1
Heart disease	12
Cyanosis	2
Intestinal diseases	25
General debility in children	5
Dysentery	2
Cholera, infantile	1
Infectious diarrhea	1
Intestinal occlusion	1
Peritonitis	1
Congenital debility	1
Hematophilia	1
Senility	1
Malarial cachexy	1
Cancer of the stomach	1
Typhoid fever	1
Infectious fever	4
Puerperal fever	1
Pernicious fever	2
Pneumonia	2
Tabes mesenterica	1
"Fiebre comatosa"	1
Total	106
Population	21,342
Death rate (per 1,000)	23.84

[Inclosure No. 6.]

TABLE VI.—*General mortality, municipal district of Caibarien, from July 1 to September 15, 1901.*

General debility in children	5
Arterio-sclerosis	1
Cancer of the stomach	1
Cirrhosis of the liver	1
Congenital debility	1
Cerebral anaemia	1
Eclampsia	3
Gastro-enteritis	2
Cerebral hemorrhage	1
Heart disease	1
Hydrohaemia	1
Peritonitis, acute	1
Typho-malarial	1
Tuberculosis of the lungs	1
Typhoid fever	1
Intestinal infections	5
Pernicious fever	2
Malarial fever	1
Uraemia	1
Unknown	1
Total	32
Population	8,650
Death rate (per 1,000)	17.75

The compartment was disinfected and ordered closed until the arrival of the vessel at Santiago de Cuba, at which port she would be thoroughly disinfected.

Four hundred and thirty-five vessels were inspected on arrival and granted pratique; 431 bills of health were issued vessels leaving the port; crews of incoming vessels inspected, 12,079; crews of outgoing vessels inspected, 12,218; passengers of incoming vessels inspected, 5,094; passengers of outgoing vessels inspected, 4,153; persons vaccinated, 35; alien steerage passengers landed, 251; health certificates issued passengers leaving the port, 2,153.

Respectfully,

S. GOMEZ,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Gibara, Cuba, September 16, 1901.

SIR: I have the honor to submit the following report of the transactions of the Marine-Hospital Service at this station for the period from July 1 to September 15, 1901, inclusive:

Eighty-six vessels arrived at this port, 87 bills of health were issued, and 19 deaths were reported.

There were no cases of quarantinable disease in the harbor or town during the period, nor at any time during the year.

Respectfully,

SALVADOR GOMEZ,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

PUERTO PADRE.

PUERTO PADRE, CUBA, *August 1, 1901.*

SIR: I have the honor to transmit, through the officer commanding the third district and the chief quarantine officer for the island of Cuba, the following report for the year ended June 30, 1901:

Two hundred and twenty-seven vessels arrived at this port during the year and were inspected and passed, and 225 bills of health were issued to vessels leaving this port; 1,303 passengers disembarked at this port during the year, and certificates of health were issued to 696 passengers leaving this port; 49 passengers, leaving, were vaccinated in this office; there were 19 deaths during the year.

The sanitary condition of the town has been good throughout the year, and there have been no cases of quarantinable disease.

Respectfully,

JOSE N. MACEO,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Puerto Padre, Cuba, September 16, 1901.

SIR: I have the honor to submit the following report of the transactions of the Marine-Hospital Service at this station for the period from July 1 to September 15, 1901, inclusive:

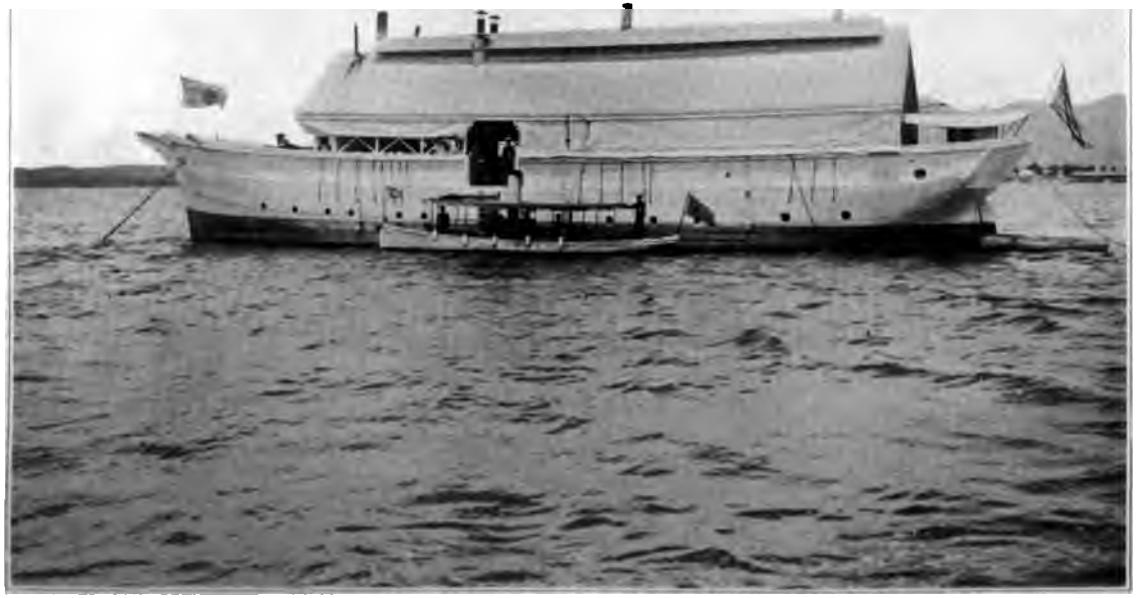
Sixty-five vessels arrived at this port during the period, 60 bills of health were issued, and 17 deaths were reported.

There were no cases of quarantinable disease reported during the period, nor at any time during the year.

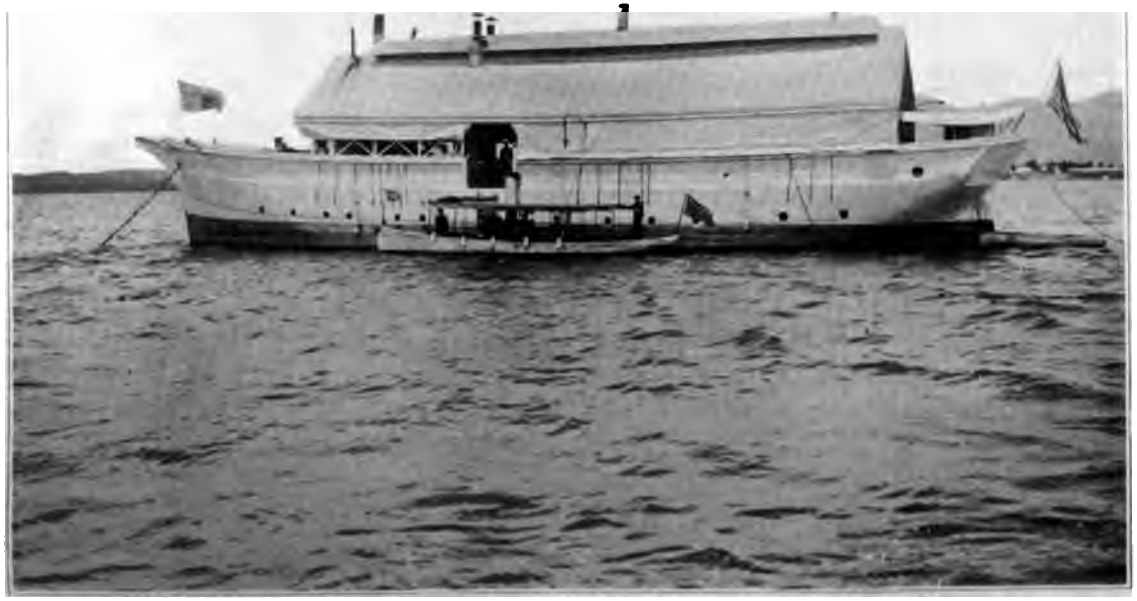
Respectfully,

JOSE N. MACEO,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.



DISINFECTING BARGE ROUGH RIDER AND LAUNCH BRANHAM, SANTIAGO, CUBA.



DISINFECTING BARGE ROUGH RIDER AND LAUNCH BRANHAM, SANTIAGO, CUBA.

supply was limited for certain hours in the day in the various districts into which the city was divided. Since the increased rainfall the supply has been about 18 gallons per capita per diem.

Another great need of the city is a sewer system. Work on this line has been progressing since the American occupation. A good deal of sewer pipe was laid prior to macadamizing the streets, but one of the main sewers into which some of these empty was yet to be provided. Since May 1, 1901, such sewer has been in construction and will not be completed much before the 1st of September, 1901. This work necessitated the tearing up of the whole length of one street which is in the lower part of the city and runs parallel to the water front for a distance of 4,000 feet. The work of the upheaval of soil into which all seepage from the city naturally drains was looked upon with suspicion and belief that it would be the origin of an epidemic of yellow fever. So far nothing of the kind has occurred. Some relief may be looked for, upon the completion of this sewer and the erection of a pumping station for emptying sewage into the bay, from that of the present unsanitary arrangement, that of vaults in the houses. Nearly all the houses are two-story structures and fouling of the air by the emanations from these vaults, breathed by such occupants, naturally lowers the vital resistance of the individual. This influence, I believe, accounts for the large mortality from tuberculosis which this year has caused more than 20 per cent of all deaths in the city.

The following mortality table shows the principal causes of deaths during the period from September 1, 1900, to June 30, 1901:

Mortality [illegible]

[illegible]	[illegible]
Total	[illegible]

[illegible]

It is understood that the same regulations apply [illegible] as far as practicable, at the subports. [illegible] are to be remanded to this port for treatment.

[illegible]

[illegible] Acting Assistant Surgeon [illegible] excellent. There were [illegible] deaths [illegible] rate of mortality of 19.06 per 1,000 [illegible]

OFFICE AND SHORE DISINFECTING PLANT, SANTIAGO, CUBA.

[illegible]

[illegible]

[illegible]

was altered and equipped by the Kensington Engine Works, Philadelphia. In company with the disinfecting barge *Guardian* it was towed to Cuba in November last, arriving at Cienfuegos in good condition December 8, 1900.

January, 1 vessel was disinfected; April, 1 vessel was disinfected; May, 2 vessels disinfected, and June, 3 vessels.

The *Sentinal* has for equipment two Kinyoun-Francis steam chambers lashed to the main deck, a little forward of amidships. Forward of the chambers is the foremast and forward hatch, with ladders leading to holds. In the between-decks are stored the disinfectants, sulphur, glyco-formol, bichloride, carbolic acid, etc. In the lower hold, a little forward of amidships, are two 2,000-gallon tanks placed on each side of the keel, containing supply of fresh water in one, the other used as a tank for solutions. In lower hold aft are 30 tons of dust coal brought here with vessel as ballast. Ten feet above main deck is a substantial wooden awning on which are laid the galvanized sulphur pipes. This awning or hurricane deck is canvas covered and painted, and, together with a partition forward and side curtains leading to the main deck, serves to protect the machinery from the effect of wind and weather. There are also drainage pipes leading from this hurricane deck to the water tanks which enable us to catch during the rainy season practically all the water necessary for consumption on the barge.

In addition, the barge is equipped with 50 feet of 6-inch rubber sulphur pipe; also ten lengths of 10 feet each, 6-inch spiral galvanized-iron pipe, with flange connections; also eight 5-foot lengths 6-inch rubber pipe. These valuable accessories make it possible for us to disinfect two holds at one time, heretofore out of the question from the scanty supply of pipe. Also 200 feet 1½-inch rubber canvas-covered hose for bichloride washings.

Barge is anchored in 27 feet of water about half a mile from our wharf, and while this location is inconvenient from its distance yet at the same time vessels of the largest size can come alongside, thus avoiding the necessity of moving the barge alongside the vessel, as has been done heretofore.

Although there is no buoy there are two anchors, one very large and strong, while the second one is of fair size.

The distance from shore is also an added safeguard, inasmuch as the distance would preclude the carriage of any infectious disease from the city, should any such disease exist or arise in the future.

The office of the U. S. Marine-Hospital Service at this port is in the building formerly used as quarters by the Spanish marines during the Spanish occupation of Cuba.

This building has seven large rooms, five of which are in use for offices and laboratory purposes. Two rooms are in use as storerooms for articles to be used at the detention camp, also articles to be put on the condemnation reports.

There are also four small rooms, closets and bathroom, kitchen, etc.

This building is situated directly behind the custom-house, and is about 200 yards distant from the wharf upon which is situated the shore disinfecting plant, being very conveniently located to meet the requirements of the service at this port.

Method of inspection.—Vessels from foreign ports, United States ports direct, or foreign or United States vessels touching at other Cuban ports, fly the yellow flag on entering the harbor, and on coming to anchorage, which is usually from one-half to 1½ miles from wharves, are boarded by the quarantine officer.

Vessels are inspected in the regular way (1) by the examination of the papers; (2) muster of the crew and passengers as called for by the bill of health. The sanitary condition of the vessel is noted, and if all is satisfactory the regular certificate of discharge from quarantine is given.

Transports have been granted pratique on the certificate of the medical officer on board.

Vessels from United States ports are inspected with special reference to smallpox; those from tropical ports particularly for yellow fever.

In the event of a vessel arriving with a contagious disease on board, a temporary camp, of which the equipment is in readiness, can be set up on Alcatraz Island, where the patient can be removed and isolated. This island, though belonging to private individuals in this city, is uninhabited, in an isolated position, and is high and dry (10 feet above mean tide).

Bills of health.—No vessel is allowed to clear from the custom-house without first securing a bill of health from this office.

Personnel.—Thomas Dorsey Berry, medical officer in command, U. S. Marine-Hospital Service; E. F. Nunez, acting assistant surgeon, U. S. Marine-Hospital Service, Alejandro Cantero, acting assistant surgeon, U. S. Marine-Hospital Service, Casilda, Cuba; Juan R. Xiques, acting assistant surgeon, U. S. Marine-Hospital Service, Santa

[illegible] del Sur, Cuba, Lanson E. McCay, temporary junior hospital steward, U. S. Marine Hospital Service, Lucius T. Berthe, disinfector, U. S. Marine Hospital Service, Angel Torres, engineer steam launch *Lepubert*, Monica Rosa, engineer disinfection, [illegible] Salinas, pilot steam launch *Lepubert*, Miguel Duranatez, seaman, disinfecting barge *Sentinel*, Patricio Fonseca, seaman, disinfecting barge *Sentinel*, Jorge de Leon, seaman on steam launch *Lepubert*, Rafael Ulloa, fireman steam launch *Lepubert*, Francisco Conlan, messenger at office.

Statistics and summary of the transactions at this station for the period from September 1, [illegible], to June 30, [illegible].

Deaths [illegible] in the civil hospital [illegible] patients are received from all parts of this province	857
Cases of yellow fever [illegible] in Port and [illegible] in Port	8
Vessels inspected, passed, and granted pratique	601
Crews of vessels inspected and passed	12,780
Passengers inspected and passed, arriving at Cienfuegos	5,687
Steerage passengers inspected and passed [illegible] and [illegible]	102
Bills of health issued vessels leaving Cienfuegos	677
Vessels disinfected prior to departure	12
Health certificates issued passengers embarking	2,[illegible]
Pieces of baggage inspected and passed leaving Cienfuegos	1,418
Pieces of baggage disinfected	807
Pieces of baggage from Habana destined to Manzanillo and Santiago inspected but disinfected at destination	788

Respectfully,

[illegible] D. Berry,
[illegible] U. S. Marine Hospital Service.

The Surgeon-General U. S. Marine Hospital Service.

[illegible]

Marine Hospital Service.

[illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

any possible excuse to anchor at a distance of from 10 to 12 miles outside the bay, where sanitary inspection becomes difficult, almost impossible at times, always dangerous and entailing a great loss of time, unless there happens to be a small steamer or launch about, which would kindly be loaned to us in order to fulfill our duties.

Respectfully,

ALEJANDRO CANTERO,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

SANTA CRUZ DEL SUR.

MARINE-HOSPITAL SERVICE,
Santa Cruz del Sur, Cuba, July 1, 1901.

SIR: Although this is not in reality a quarantine station, but an inspection station, I would be compelled to order a vessel with contagious disease on board to a quarantine station like Cienfuegos, where there will be found every facility, as in the United States ports, for handling vessels as circumstances may demand.

Having determined the nature of the contagious disease, which is accomplished in carrying out our sanitary visit by inspecting the ship, cargo, passengers and crew, baggage, manifests and other documents, food and drinking water, I would order the vessel to an anchorage in a certain place assigned for infected ships, where she is to remain until the passengers land and the vessel is disinfected. All direct communication between the ship and any person or the town will be forbidden unless it be authorized and supervised by me.

My method of inspecting vessels is as follows:

When dealing with coastwise vessels, I only make a slight inspection of the ship and papers; in handling foreign vessels, inspection is made of the cargo, crew, passengers and their personal effects, bill of health and other documents, food and drinking water.

The number of incoming and outgoing vessels inspected at Santa Cruz del Sur during the period from September 15, 1900, to June 30, 1901, will be shown in the following list:

Month.	Foreign vessels.		Coastwise vessels.	
	Entered.	Cleared.	Entered.	Cleared.
1900.				
September (15 days)	1	1	9	8
October	2	2	21	21
November	1	1	23	25
December	2	1	23	22
1901.				
January	4	4	24	25
February	6	5	21	20
March	8	3	23	24
April	6	9	19	19
May	4	6	21	20
June	2	5	18	19
Total	36	37	202	203

Respectfully,

JUAN R. XIQUES,
Acting Assistant Surgeon, Marine-Hospital Service.

MEDICAL OFFICER IN COMMAND U. S. MARINE-HOSPITAL SERVICE,
Cienfuegos, Cuba.

TUNAS DE ZAZA.

MARINE-HOSPITAL SERVICE,
Tunas de Zaza, Cuba, July 1, 1901.

I have the honor to report the following transactions for the year ended June 30, 1901, as follows:

Foreign vessels inspected	20
Coastwise vessels inspected	3

There has been no contagious or infectious disease on board any vessel entering this port during the past year.

The sanitary condition of this locality has been excellent throughout the whole year.

My method of inspecting vessels is as follows:

[illegible] the bill of health, the passengers [illegible] are inspected, then the [illegible] and after the vessel giving the same free pratique [illegible] everything is all right on board.

[illegible] a vessel should arrive with a contagious or infectious disease, she would be placed under the most strict quarantine [illegible] and the circumstances would be reported to you for instructions.

Respectfully, [illegible]

[illegible] Marine Hospital Service.

[illegible]

[illegible]

[illegible] Marine Hospital Service.

[illegible]

[illegible]

[illegible] Marine Hospital Service.

PORTO RICO.

APPOINTMENT OF CHIEF QUARANTINE OFFICER AND ORGANIZATION OF THE SERVICE.

Following the plan adopted in Cuba, the national quarantine service in Porto Rico was placed under one general head, the medical officer in command at San Juan being designated chief quarantine officer for Porto Rico October 27, 1900.

In order to systematize the work at the various stations, the following circular of instructions was issued:

[Circular.]

ORGANIZATION AND CONDUCT OF THE NATIONAL QUARANTINE SERVICE, PORTO RICO.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL, M. H. S.
Washington, D. C., October 20, 1900.

To Medical Officers of the Marine-Hospital Service,
Collectors of Customs, and Others Concerned:

Section 10 of the act of Congress approved April 12, 1900, entitled "An act temporarily to provide revenues and a civil government for Porto Rico, and for other purposes," is as follows:

"SEC. 10. That quarantine stations shall be established at such places in Porto Rico as the Supervising Surgeon-General of the Marine-Hospital Service of the United States shall direct, and the quarantine regulations relating to the importation of diseases from other countries shall be under the control of the Government of the United States."

Under the provisions of the foregoing section and in accordance with the act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," the following instructions are hereby issued for the government of the quarantine service in Porto Rico:

1. Quarantine stations are hereby established at the following ports: San Juan, Ponce, Aguadilla, Arecibo, Arroya, Humacao, Mayaguez, Baracoa, Fajardo, and Guanica.

2. The quarantine regulations of the Treasury Department issued November 13, 1899, and as subsequently or hereafter to be amended, shall be enforced at Porto Rican ports.

3. The general conduct of the quarantine service in Porto Rico shall be in accordance with the regulations governing the Marine-Hospital Service, in so far as they are applicable.

4. One officer will be detailed by the Surgeon-General of the Marine-Hospital Service as chief quarantine officer of Porto Rico in addition to his duties as quarantine officer at the port of San Juan.

5. Routine work at each port is to be conducted by the officer in command at such port, under the quarantine regulations and the regulations for the government of the Marine-Hospital Service.

6. Special questions regarding administration, detention of vessels in quarantine, methods of disinfecting unusual cargoes, etc., are to be submitted when practicable, and with recommendations, to the chief quarantine officer for decision, and when acted upon shall be promptly reported to said chief quarantine officer. The port quarantine officer will abide by the decision of the chief quarantine officer, the right of appeal to the Bureau, however, being recognized.

7. The chief quarantine officer will make periodical or special inspections of the various ports and will have authority to visit any port at any time upon the request of the officer there stationed, quoting this paragraph as authority for traveling expenses incurred and making report to the Surgeon-General of each inspection.

8. Reports and correspondence from the stations will be forwarded to the Bureau through the chief quarantine officer. In forwarding propositions involving change of policy, new structures, or extensive repairs to old structures, nominations to original vacancies, promotions, and other unusual matters, the chief q uantine officer will add his recommendations in each case.

[illegible] exceptional cases when, in the opinion of the port quarantine officer, it is necessary [illegible] the Bureau [illegible] in each case [illegible] the communication to the [illegible] quarantine officer.

The [illegible] at San Juan [illegible] for the [illegible] in Porto Rico. The account [illegible] forwarded [illegible] Marine-Hospital Bureau [illegible] and transmitted [illegible] the Auditor for the Treasury Department [illegible] the port quarantine officers and approved by the [illegible].

Each port quarantine officer [illegible] report [illegible]

[illegible]

2. The chief quarantine officer [illegible] station.

[illegible]

Supervising Surgeon-General, U. S. Marine-Hospital Service.

Approved:
[illegible], Secretary.

REGARDING THE STATUS OF MIRAFLORES ISLAND, SAN JUAN HARBOR, UPON WHICH THE QUARANTINE STATION IS LOCATED.

Attention is [illegible] upon this subject [illegible] the annual report [illegible]. On [illegible] a letter was addressed to the honorable the Secretary of War [illegible] attention to a letter from the Treasury Department [illegible], requesting that the Marine-Hospital Service be continued in its possession of Miraflores Island as a quarantine station at the port of San Juan, P. R., which [illegible] was transferred to the medical officer of the Marine-Hospital Service at that station September [illegible], by order of Brigadier-General Davis, the military governor of the island. [illegible] reply having been received to the above-named communication, [illegible] was made [illegible] the War Department could [illegible] upon the subject. In reply, the following letter was received:

[illegible]

[illegible] War Department [illegible]

[illegible] Navy Department [illegible]

[illegible] War Department [illegible]

[illegible]

The same was returned on August 6th last, by Brigadier-General Davis, with an indorsement by the chief of engineers, Department of Porto Rico, to the effect that as under the act of April 12, 1900, all harbor shores had been placed under the jurisdiction of the Civil Government, he assumed that the United States does not own, or, at least, can not use any wharf property in Porto Rico without the consent of its legislature, but suggested the transfer to the Navy Department of the land requested. A blue print showing what land belongs to the War Department was inclosed therewith.

General Davis in returning this letter approved of this transfer, and stated the temporary occupants had been notified to vacate, as they held under revocable leases from Spain, and as this property has not yet passed to the Porto Rican Government under section 13 of the act of April 12, 1900, it would seem that Congress could withdraw the land and harbor shores needed.

He also inclosed a letter from the acting governor of Porto Rico dated August 10, 1900, which said he was sure the governor approves the location of the naval station; that if legislation was needed it could be had next winter.

This correspondence was referred on August 27 by the Department to the honorable the Secretary of the Navy, with the information that this Department concurred in the preceding recommendations. No further action in the matter has yet been taken by the Department.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SECRETARY OF THE TREASURY.

A board of officers was appointed by the War Department for the purpose of inspecting the Government land in and about the city of San Juan, P. R., and on December 24, 1900, a request was made of the honorable the Secretary of War to furnish the Treasury Department with a copy of that portion of the report of said board which dealt with the subject of Miraflores Island, it being stated that it was the intention to request Congress to confirm the Marine-Hospital Service in the possession of Miraflores Island for quarantine purposes. In response to this request, the following letter was received:

WAR DEPARTMENT,
Washington, January 24, 1901.

SIR: I have your letter of the 24th ultimo and have the honor to transmit herewith a copy of so much of the report of a board of officers appointed to inspect public lands in and about the city of San Juan, P. R., as relates to the request for the permanent transfer to the Marine-Hospital Service of Miraflores Island.

The consideration of the above-mentioned report, which treats of various other subjects than that referred to by you, has been held awaiting the arrival of certain maps which have just been received.

However, I beg to advise you that the recommendation of the board as to the transfer of Miraflores Island to your Department for the use of the Marine-Hospital Service meets with my approval.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SECRETARY OF THE TREASURY.

[Inclosure.]

Extracts from the report dated San Juan, P. R., December 15, 1900, of the board of officers appointed by Special Orders, No. 271, Adjutant-General's Office, Washington, November 17, 1900.

* * * * * * *

Second. That the board also makes the following recommendations, which, though not literally covered by the duties assigned in the order, appear pertinent thereto, and the consideration of which at this time will greatly aid the settlement of all public-land questions now pending in the island.

* * * * * * *

[illegible]

[illegible]

[illegible]

EXTRACT FROM SAN JUAN AND SUBURBS

[illegible]

[illegible]

[illegible]

[illegible] grounds [illegible] narrow, this [illegible] Vega

was altered and equipped by the Kensington Engine Works, Philadelphia. In company with the disinfecting barge *Guardian* it was towed to Cuba in November last, arriving at Cienfuegos in good condition December 8, 1900.

January, 1 vessel was disinfected; April, 1 vessel was disinfected; May, 2 vessels disinfected, and June, 3 vessels.

The *Sentinal* has for equipment two Kinyoun-Francis steam chambers lashed to the main deck, a little forward of amidships. Forward of the chambers is the foremast and forward hatch, with ladders leading to holds. In the between-decks are stored the disinfectants, sulphur, glyco-formol, bichloride, carbolic acid, etc. In the lower hold, a little forward of amidships, are two 2,000-gallon tanks placed on each side of the keel, containing supply of fresh water in one, the other used as a tank for solutions. In lower hold aft are 30 tons of dust coal brought here with vessel as ballast. Ten feet above main deck is a substantial wooden awning on which are laid the galvanized sulphur pipes. This awning or hurricane deck is canvas covered and painted, and, together with a partition forward and side curtains leading to the main deck, serves to protect the machinery from the effect of wind and weather. There are also drainage pipes leading from this hurricane deck to the water tanks which enable us to catch during the rainy season practically all the water necessary for consumption on the barge.

In addition, the barge is equipped with 50 feet of 6-inch rubber sulphur pipe; also ten lengths of 10 feet each, 6-inch spiral galvanized-iron pipe, with flange connections; also eight 5-foot lengths 6-inch rubber pipe. These valuable accessories make it possible for us to disinfect two holds at one time, heretofore out of the question from the scanty supply of pipe. Also 200 feet 1½-inch rubber canvas-covered hose for bichloride washings.

Barge is anchored in 27 feet of water about half a mile from our wharf, and while this location is inconvenient from its distance yet at the same time vessels of the largest size can come alongside, thus avoiding the necessity of moving the barge alongside the vessel, as has been done heretofore.

Although there is no buoy there are two anchors, one very large and strong, while the second one is of fair size.

The distance from shore is also an added safeguard, inasmuch as the distance would preclude the carriage of any infectious disease from the city, should any such disease exist or arise in the future.

The office of the U. S. Marine-Hospital Service at this port is in the building formerly used as quarters by the Spanish marines during the Spanish occupation of Cuba.

This building has seven large rooms, five of which are in use for offices and laboratory purposes. Two rooms are in use as storerooms for articles to be used at the detention camp, also articles to be put on the condemnation reports.

There are also four small rooms, closets and bathroom, kitchen, etc.

This building is situated directly behind the custom-house, and is about 200 yards distant from the wharf upon which is situated the shore disinfecting plant, being very conveniently located to meet the requirements of the service at this port.

Method of inspection.—Vessels from foreign ports, United States ports direct, or foreign or United States vessels touching at other Cuban ports, fly the yellow flag on entering the harbor, and on coming to anchorage, which is usually from one-half to 1½ miles from wharves, are boarded by the quarantine officer.

Vessels are inspected in the regular way (1) by the examination of the papers; (2) muster of the crew and passengers as called for by the bill of health. The sanitary condition of the vessel is noted, and if all is satisfactory the regular certificate of discharge from quarantine is given.

Transports have been granted pratique on the certificate of the medical officer on board.

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In the event of a vessel arriving with a contagious disease on board, a temporary camp, of which the equipment is in readiness, can be set up on Alcatraz Island, where the patient can be removed and isolated. This island, though belonging to private individuals in this city, is uninhabited, in an isolated position, and is high and dry (10 feet above mean tide).

Bills of health.—No vessel is allowed to clear from the custom-house without first securing a bill of health from this office.

Personnel.—Thomas Dorsey Berry, medical officer in command, U. S. Marine-Hospital Service; E. F. Nunez, acting assistant surgeon, U. S. Marine-Hospital Service, Alejandro Cantero, acting assistant surgeon, U. S. Marine-Hospital Service, Casilda, Cuba; Juan R. Xiques, acting assistant surgeon, U. S. Marine-Hospital Service, Santa

[illegible] Colin, Lamon F. McCay, temporary junior hospital steward, U. S. Marine-Hospital Service, Lucius T. Berthe, disinfector, U. S. Marine-Hospital Service, Jorge [illegible], engineer steam launch *Lepahart*, Monica Riva, engineer disinfection, [illegible] Salinte, pilot steam launch *Lepahart*, Miguel Peramato, seaman, disinfecting barge *Sentinel*, Patricio Fonseca, seaman, disinfecting barge *Sentinel*, Jorge de Leon, seaman on steam launch *Lepahart*, Rafael Ulloa, fireman steam launch *Lepahart*, Francisco [illegible], messenger at office.

Statement and summary of the transactions at the port of [illegible] for the period from September 1, [illegible] to [illegible]

Inspection [illegible] occurred in the local hospital in which patients are received from a [illegible] of this province	857
Cases of [illegible] fever, [illegible] and [illegible]	8
Vessels inspected, passed, and granted pratique	[illegible]
Crews of vessels inspected and passed	12,780
Passengers inspected and passed, arriving at Cienfuegos	[illegible]
[illegible] passengers inspected and passed [illegible]	102
[illegible] vessels leaving Cienfuegos	[illegible]
Vessels disinfected prior to departure	12
Hospital [illegible] passengers embarking	[illegible]
Pieces of baggage inspected and passed, leaving Cienfuegos	[illegible]
Pieces of baggage disinfected	[illegible]
Pieces of baggage from Habana, destination Manzanillo and Santiago, inspected and disinfected at destination	[illegible]

Respectfully,

[illegible] D. Berry,
[illegible] U. S. Marine-Hospital Service.

The Surgeon-General, U. S. Marine-Hospital Service.

Marine-Hospital Service,
[illegible]

I have the honor to submit the annual report of the transactions at the port of [illegible] during the fiscal year ending June 30, [illegible]

Bills of health inspected	[illegible]
Crews	[illegible]
Passengers	[illegible]
Vessels inspected	[illegible]
Crews	[illegible]
Passengers	[illegible]
Bills of health issued	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

any possible excuse to anchor at a distance of from 10 to 12 miles outside the bay, where sanitary inspection becomes difficult, almost impossible at times, always dangerous and entailing a great loss of time, unless there happens to be a small steamer or launch about, which would kindly be loaned to us in order to fulfill our duties.

Respectfully,

ALEJANDRO CANTERO,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

SANTA CRUZ DEL SUR.

MARINE-HOSPITAL SERVICE,
Santa Cruz del Sur, Cuba, July 1, 1901.

SIR: Although this is not in reality a quarantine station, but an inspection station, I would be compelled to order a vessel with contagious disease on board to a quarantine station like Cienfuegos, where there will be found every facility, as in the United States ports, for handling vessels as circumstances may demand.

Having determined the nature of the contagious disease, which is accomplished in carrying out our sanitary visit by inspecting the ship, cargo, passengers and crew, baggage, manifests and other documents, food and drinking water, I would order the vessel to an anchorage in a certain place assigned for infected ships, where she is to remain until the passengers land and the vessel is disinfected. All direct communication between the ship and any person or the town will be forbidden unless it be authorized and supervised by me.

My method of inspecting vessels is as follows:

When dealing with coastwise vessels, I only make a slight inspection of the ship and papers; in handling foreign vessels, inspection is made of the cargo, crew, passengers and their personal effects, bill of health and other documents, food and drinking water.

The number of incoming and outgoing vessels inspected at Santa Cruz del Sur during the period from September 15, 1900, to June 30, 1901, will be shown in the following list:

Month.	Foreign vessels.		Coastwise vessels.	
	Entered.	Cleared.	Entered.	Cleared.
1900.				
September (15 days)	1	1	9	8
October	2	2	21	21
November	1	1	23	25
December	2	1	23	22
1901.				
January	4	4	24	25
February	6	5	21	20
March	8	3	23	24
April	6	9	19	19
May	4	6	21	20
June	2	5	18	19
Total	36	37	202	203

Respectfully,

JUAN R. XIQUES,
Acting Assistant Surgeon, Marine-Hospital Service.

MEDICAL OFFICER IN COMMAND U. S. MARINE-HOSPITAL SERVICE,
Cienfuegos, Cuba.

TUNAS DE ZAZA.

MARINE-HOSPITAL SERVICE,
Tunas de Zaza, Cuba, July 1, 1901.

I have the honor to report the following transactions for the year ended June 30, 1901, as follows:

Foreign vessels inspected	20
Coastwise vessels inspected	3

There has been no contagious or infectious disease on board any vessel entering this port during the past year.

The sanitary condition of this locality has been excellent throughout the whole year.

[illegible] of inspecting vessels is as follows: [illegible]

[illegible] board [illegible] the passengers, if any, are inspected, then the [illegible] giving the same free pratique if everything is all right on [illegible]

[illegible] with contagious or infectious disease, she would be [illegible] strict quarantine [illegible] and the circumstances would [illegible] instructions.

[illegible]

M[illegible] CANIZARES,
[illegible] *Marine Hospital Service.*

[illegible]

MARINE HOSPITAL SERVICE,
[illegible]

[illegible] Washington [illegible] September [illegible] I [illegible] report [illegible]

[illegible]

Marine Hospital Service.

[illegible] Marine Hospital [illegible]

PORTO RICO.

APPOINTMENT OF CHIEF QUARANTINE OFFICER AND ORGANIZATION OF THE SERVICE.

Following the plan adopted in Cuba, the national quarantine service in Porto Rico was placed under one general head, the medical officer in command at San Juan being designated chief quarantine officer for Porto Rico October 27, 1900.

In order to systematize the work at the various stations, the following circular of instructions was issued:

[Circular.]

ORGANIZATION AND CONDUCT OF THE NATIONAL QUARANTINE SERVICE, PORTO RICO.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL, M. H. S.
Washington, D. C., October 20, 1900.

To Medical Officers of the Marine-Hospital Service,
Collectors of Customs, and Others Concerned:

Section 10 of the act of Congress approved April 12, 1900, entitled "An act temporarily to provide revenues and a civil government for Porto Rico, and for other purposes," is as follows:

"SEC. 10. That quarantine stations shall be established at such places in Porto Rico as the Supervising Surgeon-General of the Marine-Hospital Service of the United States shall direct, and the quarantine regulations relating to the importation of diseases from other countries shall be under the control of the Government of the United States."

Under the provisions of the foregoing section and in accordance with the act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," the following instructions are hereby issued for the government of the quarantine service in Porto Rico:

1. Quarantine stations are hereby established at the following ports: San Juan, Ponce, Aguadilla, Arecibo, Arroya, Humacao, Mayaguez, Baracoa, Fajardo, and Guanica.

2. The quarantine regulations of the Treasury Department issued November 13, 1899, and as subsequently or hereafter to be amended, shall be enforced at Porto Rican ports.

3. The general conduct of the quarantine service in Porto Rico shall be in accordance with the regulations governing the Marine-Hospital Service, in so far as they are applicable.

4. One officer will be detailed by the Surgeon-General of the Marine-Hospital Service as chief quarantine officer of Porto Rico in addition to his duties as quarantine officer at the port of San Juan.

5. Routine work at each port is to be conducted by the officer in command at such port, under the quarantine regulations and the regulations for the government of the Marine-Hospital Service.

6. Special questions regarding administration, detention of vessels in quarantine, methods of disinfecting unusual cargoes, etc., are to be submitted when practicable, and with recommendations, to the chief quarantine officer for decision, and when acted upon shall be promptly reported to said chief quarantine officer. The port quarantine officer will abide by the decision of the chief quarantine officer, the right of appeal to the Bureau, however, being recognized.

7. The chief quarantine officer will make periodical or special inspections of the various ports and will have authority to visit any port at any time upon the request of the officer there stationed, quoting this paragraph as authority for traveling expenses incurred and making report to the Surgeon-General of each inspection.

8. Reports and correspondence from the stations will be forwarded to the Bureau through the chief quarantine officer. In forwarding propositions involving change of policy, new structures, or extensive repairs to old structures, nominations to original vacancies, promotions, and other unusual matters, the chief quarantine officer will add his recommendations in each case.

[illegible]

[illegible]

[illegible] THE STATES OF MIRAFLORES ISLAND, SAN JUAN HARBOR, [illegible] IN WHICH THE QUARANTINE STATION IS LOCATED

[illegible]

The same was returned on August 6th last, by Brigadier-General Davis, with an indorsement by the chief of engineers, Department of Porto Rico, to the effect that as under the act of April 12, 1900, all harbor shores had been placed under the jurisdiction of the Civil Government, he assumed that the United States does not own, or, at least, can not use any wharf property in Porto Rico without the consent of its legislature, but suggested the transfer to the Navy Department of the land requested. A blue print showing what land belongs to the War Department was inclosed therewith.

General Davis in returning this letter approved of this transfer, and stated the temporary occupants had been notified to vacate, as they held under revocable leases from Spain, and as this property has not yet passed to the Porto Rican Government under section 13 of the act of April 12, 1900, it would seem that Congress could withdraw the land and harbor shores needed.

He also inclosed a letter from the acting governor of Porto Rico dated August 10, 1900, which said he was sure the governor approves the location of the naval station; that if legislation was needed it could be had next winter.

This correspondence was referred on August 27 by the Department to the honorable the Secretary of the Navy, with the information that this Department concurred in the preceding recommendations. No further action in the matter has yet been taken by the Department.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SECRETARY OF THE TREASURY.

A board of officers was appointed by the War Department for the purpose of inspecting the Government land in and about the city of San Juan, P. R., and on December 24, 1900, a request was made of the honorable the Secretary of War to furnish the Treasury Department with a copy of that portion of the report of said board which dealt with the subject of Miraflores Island, it being stated that it was the intention to request Congress to confirm the Marine-Hospital Service in the possession of Miraflores Island for quarantine purposes. In response to this request, the following letter was received:

WAR DEPARTMENT,
Washington, January 24, 1901.

SIR: I have your letter of the 24th ultimo and have the honor to transmit herewith a copy of so much of the report of a board of officers appointed to inspect public lands in and about the city of San Juan, P. R., as relates to the request for the permanent transfer to the Marine-Hospital Service of Miraflores Island.

The consideration of the above-mentioned report, which treats of various other subjects than that referred to by you, has been held awaiting the arrival of certain maps which have just been received.

However, I beg to advise you that the recommendation of the board as to the transfer of Miraflores Island to your Department for the use of the Marine-Hospital Service meets with my approval.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SECRETARY OF THE TREASURY.

[Inclosure.]

Extracts from the report dated San Juan, P. R., December 15, 1900, of the board of officers appointed by Special Orders, No. 271, Adjutant-General's Office, Washington, November 17, 1900.

* * * * * * *

Second. That the board also makes the following recommendations, which, though not literally covered by the duties assigned in the order, appear pertinent thereto, and the consideration of which at this time will greatly aid the settlement of all public-land questions now pending in the island.

* * * * * * *

[illegible]

[illegible]

EXTRACT FROM SAN JUAN AND SUBPORTS.

[illegible]

sels from ports that are suspicious are required to anchor here, and the crews and passengers mustered and inspected. The cargo and baggage are also inspected, and all baggage and mail for Porto Rico, unless bearing the certificate of disinfection of an officer of the Service at the port from which it was taken on, are removed to the island and disinfected by steam or formaldehyde, as the case may require. All passengers for Porto Rico, who can not produce satisfactory evidence of immunity to yellow fever, are taken to the island and held in quarantine the necessary observation period. Passengers for Porto Rico who can not exhibit recent vaccination marks, or produce evidence of recent "takes" following vaccination, are vaccinated. If there is no sickness on board of such vessels they are permitted to take passengers and water and land freight in quarantine, under guard. Freight thus discharged is lightered ashore, and it is required of the guard to see that no direct communication is held with the city by any passengers remaining on board or the crew. Vessels arriving from ports known to be free from quarantinable diseases are, after inspection, permitted to dock.

The class of vessels which enter this port from suspicious ports generally touch here to land a few passengers and mail, take water and passengers, and sail, usually, within twenty-four hours. The exception to this is the Herrera Line of steamers, plying between Cuba, Dominican ports, and Porto Rico. Two vessels of this line arrive at San Juan each month. They are invariably disinfected by officers of the Service at Santiago de Cuba prior to sailing for Porto Rico via Porto Plata.

In quarantine.—Vessels arriving here with sickness on board, or evidence of having recently had illness of a quarantinable nature on board would be, unless they declined disinfection and sailed immediately, taken to "in quarantine" anchorage—about 1 mile up the bay from the "out quarantine" anchorage and 2 miles from the city—the barge placed alongside, and the vessels disinfected as prescribed by regulation. The passengers on such a vessel would be removed to the island, given a bath and change of clothing, and placed in quarters in the detention building. Any sick would of course be at once removed to the lazaretto and strict isolation maintained. Personal clothing of such passengers would be immediately disinfected, and any baggage and mail as soon thereafter as possible. A medical officer, hospital steward, and all attendants on the island would be placed in quarantine, and all direct communication with the city discontinued until the vessel and passengers had been released. No vessel requiring disinfection has arrived in Porto Rico during the period covered in this report.

Subports.—There are six subports reporting to this office, namely: Mayaguez, Arecibo, Humacao, Fajardo, Arroyo, and Aguadilla. An acting assistant surgeon of the Service is stationed at each, and makes regular weekly and monthly reports to this office.

Statistics.—The following is a summary of the transactions of this and the six subports during the period embraced by this report:

San Juan:	
Vessels inspected	204
Bills of health issued	266
Crew inspected	14,464
Local passengers inspected	2,114
Passengers in transit inspected	7,062
Vessels held in quarantine	15
Pieces of baggage disinfected	180
Sacks of mail disinfected	10
Persons vaccinated	106
Passengers detained at quarantine station	20
Subports:	
Vessels inspected	226
Bills of health issued	249
Crew inspected	7,880
Passengers inspected (in total)	2,357
Vessels held in quarantine	13
Pieces of baggage disinfected	81
Persons vaccinated	9

Porto Rico being free from yellow fever for several years past, no inspection of outgoing baggage is necessary. And for a similar reason few applications are had for certificates of immunity to yellow fever. Certificates of protection against smallpox or of recent vaccination, when such vaccination is performed by medical officers on duty at this port, are issued here.

City office.—At the city office, at present located at No. 3 San Justo street, convenient to the water front, most of the clerical work of the station is done, including the

[illegible] of health, certificates, etc. The office is also used as the marine hospital for the port, and the [illegible] dispensary is there located.

[illegible]

[illegible]

[illegible]

[illegible]

The following is a résumé of the transactions of the subports during the period embraced by this report:

Vessels inspected	39
Bills of health issued	45
Crew inspected	1,231
Passengers inspected (in total)	717
Vessels held in quarantine	4
Pieces of baggage disinfected	130

Nothing of interest has been reported to this office from any of the subports during the period covered by this report.

The island is at present free from any quarantinable disease.

Respectfully,

H. S. MATHEWSON,
Passed Assistant Surgeon, U. S. Marine-Hospital Service,
Chief Quarantine Officer for Porto Rico.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

REPORT FROM PONCE.

REPORT OF TRANSACTIONS AT THE PORT OF PONCE, P. R., DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Asst. Surg. W. W. KING.

MARINE-HOSPITAL SERVICE,
Ponce, P. R., August 3, 1901.

SIR: In accordance with Bureau letter of July 18, 1901, I have the honor to submit the following report of the transactions at this station from September 15, 1900, to and including June 30, 1901:

Vessels inspected	164
Vessels in quarantine	21
Crew inspected	6,836
Passengers for Ponce inspected	915
Passengers in transit inspected	2,583
Passengers whose baggage was disinfected	1
Pieces of baggage disinfected	1
Bills of health issued	227

The work of the station was lessened somewhat after October 1, 1900, since which time vessels from the United States have not been subject to inspection except from Californian ports, and from New Orleans during the close quarantine season.

During the period covered by this report no vessel arrived with any quarantinable disease on board, and only one passenger whose baggage required disinfection. The passengers came chiefly from Europe, United States, Santo Domingo, and Cuba; the baggage from the latter when requiring disinfection being so treated at the port of departure, which accounts for so small amount of this work at this station. Passengers are inspected personally by comparison with the passenger lists and the thermometer used in all cases of the slightest doubt.

The station has no facilities whatever for detention of passengers or care of sick people. Fortunately all vessels that have brought nonimmunes requiring detention have been en route to San Juan, and the passengers were detained aboard, completing their five-day period at that station. This entails a hardship on Ponce passengers, who must make the extra expensive journey back to Ponce from San Juan.

The vessels held in quarantine have been chiefly Cuban steamers from Habana, via Cuban and Dominican ports, coming disinfected at Santiago, Cuba, and held only to prevent the landing of nonimmunes; and Spanish steamers from Habana, via Port Limon, Colon, Cartagena, Sabanilla, Puerto Cabello, and La Guayra, coming without disinfection and carrying a large number of dirty steerage passengers. These vessels are held to prevent any other than necessary communication with the shore. Passengers for Ponce are allowed to land with disinfection of their baggage if deemed advisable. Few people come by these vessels.

[illegible]

W. W. K.

[illegible]

[illegible]

[illegible]

Mexico

CHANGES IN ASSIGNMENTS OF OFFICERS

On March 1, 1901, Acting Asst. Surg. [illegible] to the office of the [illegible] States [illegible] Mexico for the inspection of [illegible] States, relieving Acting Asst. Surg. [illegible] forward to Progreso, Mexico, for duty.

On April 19, 1901, Acting Asst. Surg. [illegible] to duty in the office of the United States [illegible] at Tampico, Mexico. Below are the instructions sent to one of the officers, they being applicable to each port.

PORTO RICO.

APPOINTMENT OF CHIEF QUARANTINE OFFICER AND ORGANIZATION OF THE SERVICE.

Following the plan adopted in Cuba, the national quarantine service in Porto Rico was placed under one general head, the medical officer in command at San Juan being designated chief quarantine officer for Porto Rico October 27, 1900.

In order to systematize the work at the various stations, the following circular of instructions was issued:

[Circular.]

ORGANIZATION AND CONDUCT OF THE NATIONAL QUARANTINE SERVICE, PORTO RICO.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL, M. H. S.
Washington, D. C., October 20, 1900.

To Medical Officers of the Marine-Hospital Service,
Collectors of Customs, and Others Concerned:

Section 10 of the act of Congress approved April 12, 1900, entitled "An act temporarily to provide revenues and a civil government for Porto Rico, and for other purposes," is as follows:

"SEC. 10. That quarantine stations shall be established at such places in Porto Rico as the Supervising Surgeon-General of the Marine-Hospital Service of the United States shall direct, and the quarantine regulations relating to the importation of diseases from other countries shall be under the control of the Government of the United States."

Under the provisions of the foregoing section and in accordance with the act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," the following instructions are hereby issued for the government of the quarantine service in Porto Rico:

1. Quarantine stations are hereby established at the following ports: San Juan, Ponce, Aguadilla, Arecibo, Arroya, Humacao, Mayaguez, Baracoa, Fajardo, and Guanica.

2. The quarantine regulations of the Treasury Department issued November 13, 1899, and as subsequently or hereafter to be amended, shall be enforced at Porto Rican ports.

3. The general conduct of the quarantine service in Porto Rico shall be in accordance with the regulations governing the Marine-Hospital Service, in so far as they are applicable.

4. One officer will be detailed by the Surgeon-General of the Marine-Hospital Service as chief quarantine officer of Porto Rico in addition to his duties as quarantine officer at the port of San Juan.

5. Routine work at each port is to be conducted by the officer in command at such port, under the quarantine regulations and the regulations for the government of the Marine-Hospital Service.

6. Special questions regarding administration, detention of vessels in quarantine, methods of disinfecting unusual cargoes, etc., are to be submitted when practicable, and with recommendations, to the chief quarantine officer for decision, and when acted upon shall be promptly reported to said chief quarantine officer. The port quarantine officer will abide by the decision of the chief quarantine officer, the right of appeal to the Bureau, however, being recognized.

7. The chief quarantine officer will make periodical or special inspections of the various ports and will have authority to visit any port at any time upon the request of the officer there stationed, quoting this paragraph as authority for traveling expenses incurred and making report to the Surgeon-General of each inspection.

8. Reports and correspondence from the stations will be forwarded to the Bureau through the chief quarantine officer. In forwarding propositions involving change of policy, new structures, or extensive repairs to old structures, nominations to original vacancies, promotions, and other unusual matters, the chief quarantine officer will add his recommendations in each case.

6. In exceptional cases when, in the opinion of the port quarantine officer, it is necessary to write or telegraph the Bureau direct, he may do so, but in each case will forward a copy of the communication to the chief quarantine officer.

The chief quarantine officer at San Juan will act as disbursing officer for the quarantine service in Porto Rico. His account of disbursements will be forwarded [illegible] the Marine-Hospital Bureau for administrative examination and transmission to the Auditor for the Treasury Department. He will pay the expenses incurred [illegible] the regulations [illegible] when certified [illegible] by the port quarantine officers and approved by the chief quarantine officer.

7. Each port quarantine officer [illegible] each month a report [illegible] expenses [illegible] during the preceding month [illegible]. These reports [illegible] chief quarantine officer [illegible] Bureau.

8. The chief quarantine officer [illegible] quarantine [illegible] necessary. [illegible] station.

Walter Wyman,
Supervising Surgeon-General, U. S. Marine-Hospital Service.

Approved:
L. J. Gage, Secretary.

REGARDING THE STATUS OF MIRAFLORES ISLAND, SAN JUAN HARBOR, UPON WHICH THE QUARANTINE STATION IS LOCATED.

Attention is invited to remarks upon this subject in the annual report of [illegible]. On October [illegible], a letter was addressed to the honorable the Secretary of War calling attention to a letter from the Treasury Department of June [illegible], requesting that the Marine-Hospital Service be confirmed in its possession of Miraflores Island as a quarantine station at the port of San Juan, P. R., which island was transferred to the medical officer of the Marine-Hospital Service at that station September [illegible], by order of Brigadier-General Davis, then military governor of the island [illegible] communication, [illegible] was made [illegible] that the War Department [illegible] upon the subject. In reply, the following letter was received:

[illegible]

The same was returned on August 6th last, by Brigadier-General Davis, with an indorsement by the chief of engineers, Department of Porto Rico, to the effect that as under the act of April 12, 1900, all harbor shores had been placed under the jurisdiction of the Civil Government, he assumed that the United States does not own, or, at least, can not use any wharf property in Porto Rico without the consent of its legislature, but suggested the transfer to the Navy Department of the land requested. A blue print showing what land belongs to the War Department was inclosed therewith.

General Davis in returning this letter approved of this transfer, and stated the temporary occupants had been notified to vacate, as they held under revocable lease from Spain, and as this property has not yet passed to the Porto Rican Government under section 13 of the act of April 12, 1900, it would seem that Congress could withdraw the land and harbor shores needed.

He also inclosed a letter from the acting governor of Porto Rico dated August 10, 1900, which said he was sure the governor approves the location of the naval station: that if legislation was needed it could be had next winter.

This correspondence was referred on August 27 by the Department to the honorable the Secretary of the Navy, with the information that this Department concurred in the preceding recommendations. No further action in the matter has yet been taken by the Department.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SECRETARY OF THE TREASURY.

A board of officers was appointed by the War Department for the purpose of inspecting the Government land in and about the city of San Juan, P. R., and on December 24, 1900, a request was made of the honorable the Secretary of War to furnish the Treasury Department with a copy of that portion of the report of said board which dealt with the subject of Miraflores Island, it being stated that it was the intention to request Congress to confirm the Marine-Hospital Service in the possession of Miraflores Island for quarantine purposes. In response to this request, the following letter was received:

WAR DEPARTMENT,
Washington, January 24, 1901.

SIR: I have your letter of the 24th ultimo and have the honor to transmit herewith a copy of so much of the report of a board of officers appointed to inspect public lands in and about the city of San Juan, P. R., as relates to the request for the permanent transfer to the Marine-Hospital Service of Miraflores Island.

The consideration of the above-mentioned report, which treats of various other subjects than that referred to by you, has been held awaiting the arrival of certain maps which have just been received.

However, I beg to advise you that the recommendation of the board as to the transfer of Miraflores Island to your Department for the use of the Marine-Hospital Service meets with my approval.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SECRETARY OF THE TREASURY.

[Inclosure.]

Extracts from the report dated San Juan, P. R., December 15, 1900, of the board of officers appointed by Special Orders, No. 271, Adjutant-General's Office, Washington, November 17, 1900.

* * * * * *

nd. That the board also makes the following recommendations, which, though erally covered by the duties assigned in the order, appear pertinent thereto, e consideration of which at this time will greatly aid the settlement of all pub- d questions now pending in the island.

* * * * * *

[illegible]

[illegible]

[illegible]

REPORT FROM SAN JUAN AND SUPINOTS

[illegible]

[illegible]

[illegible]

sels from ports that are suspicious are required to anchor here, and the crews and passengers mustered and inspected. The cargo and baggage are also inspected, and all baggage and mail for Porto Rico, unless bearing the certificate of disinfection of an officer of the Service at the port from which it was taken on, are removed to the island and disinfected by steam or formaldehyde, as the case may require. All passengers for Porto Rico, who can not produce satisfactory evidence of immunity to yellow fever, are taken to the island and held in quarantine the necessary observation period. Passengers for Porto Rico who can not exhibit recent vaccination marks, or produce evidence of recent "takes" following vaccination, are vaccinated. If there is no sickness on board of such vessels they are permitted to take passengers and water and land freight in quarantine, under guard. Freight thus discharged is lightered ashore, and it is required of the guard to see that no direct communication is held with the city by any passengers remaining on board or the crew. Vessels arriving from ports known to be free from quarantinable diseases are, after inspection, permitted to dock.

The class of vessels which enter this port from suspicious ports generally touch here to land a few passengers and mail, take water and passengers, and sail, usually, within twenty-four hours. The exception to this is the Herrera Line of steamers, plying between Cuba, Dominican ports, and Porto Rico. Two vessels of this line arrive at San Juan each month. They are invariably disinfected by officers of the Service at Santiago de Cuba prior to sailing for Porto Rico via Porto Plata.

In quarantine.—Vessels arriving here with sickness on board, or evidence of having recently had illness of a quarantinable nature on board would be, unless they declined disinfection and sailed immediately, taken to "in quarantine" anchorage—about 1 mile up the bay from the "out quarantine" anchorage and 2 miles from the city—the barge placed alongside, and the vessels disinfected as prescribed by regulation. The passengers on such a vessel would be removed to the island, given a bath and change of clothing, and placed in quarters in the detention building. Any sick would of course be at once removed to the lazaretto and strict isolation maintained. Personal clothing of such passengers would be immediately disinfected, and any baggage and mail as soon thereafter as possible. A medical officer, hospital steward, and all attendants on the island would be placed in quarantine, and all direct communication with the city discontinued until the vessel and passengers had been released. No vessel requiring disinfection has arrived in Porto Rico during the period covered in this report.

Subports.—There are six subports reporting to this office, namely: Mayaguez, Arecibo, Humacao, Fajardo, Arroyo, and Aguadilla. An acting assistant surgeon of the Service is stationed at each, and makes regular weekly and monthly reports to this office.

Statistics.—The following is a summary of the transactions of this and the six subports during the period embraced by this report:

San Juan:	
Vessels inspected	204
Bills of health issued	266
Crew inspected	14,464
Local passengers inspected	2,114
Passengers in transit inspected	7,062
Vessels held in quarantine	15
Pieces of baggage disinfected	180
Sacks of mail disinfected	10
Persons vaccinated	106
Passengers detained at quarantine station	20
Subports:	
Vessels inspected	226
Bills of health issued	249
Crew inspected	7,880
Passengers inspected (in total)	2,357
Vessels held in quarantine	13
Pieces of baggage disinfected	81
Persons vaccinated	9

Porto Rico being free from yellow fever for several years past, no inspection of outgoing baggage is necessary. And for a similar reason few applications are had for certificates of immunity to yellow fever. Certificates of protection against smallpox or of recent vaccination, when such vaccination is performed by medical officers on duty at this port, are issued here.

City office.—At the city office, at present located at No. 3 San Justo street, convenient to the water front, most of the clerical work of the station is done, including the

[illegible]

The following is a résumé of the transactions of the subports during the period embraced by this report:

Vessels inspected	39
Bills of health issued	45
Crew inspected	1,231
Passengers inspected (in total)	717
Vessels held in quarantine	4
Pieces of baggage disinfected	130

Nothing of interest has been reported to this office from any of the subports during the period covered by this report.

The island is at present free from any quarantinable disease.

Respectfully,

H. S. MATHEWSON,
Passed Assistant Surgeon, U. S. Marine-Hospital Service,
Chief Quarantine Officer for Porto Rico.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

REPORT FROM PONCE.

REPORT OF TRANSACTIONS AT THE PORT OF PONCE, P. R., DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Asst. Surg. W. W. KING.

MARINE-HOSPITAL SERVICE,
Ponce, P. R., August 3, 1901.

SIR: In accordance with Bureau letter of July 18, 1901, I have the honor to submit the following report of the transactions at this station from September 15, 1900, to and including June 30, 1901:

Vessels inspected	164
Vessels in quarantine	21
Crew inspected	6,836
Passengers for Ponce inspected	915
Passengers in transit inspected	2,583
Passengers whose baggage was disinfected	1
Pieces of baggage disinfected	1
Bills of health issued	227

The work of the station was lessened somewhat after October 1, 1900, since which time vessels from the United States have not been subject to inspection except from Californian ports, and from New Orleans during the close quarantine season.

During the period covered by this report no vessel arrived with any quarantinable disease on board, and only one passenger whose baggage required disinfection. The passengers came chiefly from Europe, United States, Santo Domingo, and Cuba; the baggage from the latter when requiring disinfection being so treated at the port of departure, which accounts for so small amount of this work at this station. Passengers are inspected personally by comparison with the passenger lists and the thermometer used in all cases of the slightest doubt.

The station has no facilities whatever for detention of passengers or care of sick people. Fortunately all vessels that have brought nonimmunes requiring detention have been en route to San Juan, and the passengers were detained aboard, completing their five-day period at that station. This entails a hardship on Ponce passengers, who must make the extra expensive journey back to Ponce from San Juan.

The vessels held in quarantine have been chiefly Cuban steamers from Habana, via Cuban and Dominican ports, coming disinfected at Santiago, Cuba, and held only to prevent the landing of nonimmunes; and Spanish steamers from Habana, via Port Limon, Colon, Cartagena, Sabanilla, Puerto Cabello, and La Guayra, coming without disinfection and carrying a large number of dirty steerage passengers. These vessels are held to prevent any other than necessary communication with the shore. Passengers for Ponce are allowed to land with disinfection of their baggage if deemed advisable. Few people come by these vessels.

[illegible]

W. W. K.

[illegible]

[illegible]

Mexico.

[illegible]

On March 1, 1901, Acting Assistant Surgeon [illegible] left Havana, Cuba, for the office of the United States consul at [illegible], Mexico, for the inspection of [illegible] United States, relieving Acting Assistant Surgeon [illegible] forwarded to Progreso, Mexico, for [illegible].

On April 1, 1901, Acting Assistant Surgeon [illegible] left in the office of the United States consul at Tampico, Mexico. Following are the instructions sent to [illegible] officers they being assigned to each port.

INSTRUCTIONS TO OFFICER AT VERA CRUZ.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL M. H. S.,
Washington, March 21, 1901.

SIR: Referring to Bureau letter of March 1, 1901, approved by the Honorable, the Secretary of the Treasury, and by the President, assigning you to duty in the office of the United States consul at Vera Cruz, Mexico, I have to inform you that your duties under this order will comprise the inspection of all vessels leaving Vera Cruz for any port in the United States or its dependencies, together with the inspection of all passengers, their baggage, and of such cargo as is liable to convey infection, as provided for in the United States Quarantine Regulations to be observed at foreign ports.

All baggage which is considered by you to be dangerous must be disinfected in accordance with the United States Quarantine Regulations. The principles governing the action of an officer detailed to a foreign port are that the owners or master of a vessel must comply with the regulations which have been provided in order to obtain the bill of health, without which a vessel can not enter a port of the United States except by subjecting herself to a fine. It sometimes happens, and may happen at your port, that it is more convenient for you to undertake the supervision of the disinfection in order that you can properly certify to the bill of health, but the material and appliances are properly a charge against the vessel, although in some instances appliances have been furnished by the Bureau. You will sign the bills of health in conjunction with the United States consul at Vera Cruz and issue same to the vessels inspected by you.

There is forwarded to you, under separate cover, a supply of blank form No. 1931, upon which you will transmit to the Bureau a weekly abstract of bills of health issued. You will also transmit a letter to the Bureau, at least once a week, giving in detail the transactions at your station, and incorporate therein anything else which may be of interest concerning public health.

Your duties should be carried out in a spirit of friendly cooperation with the consul, with a view to insuring the greatest degree of safety with the least interference with commerce. The State Department will be requested to notify the United States consul of your detail in his office.

Should matters arise which are not covered by the United States Quarantine Regulations you will be guided by the experience gained at the port of Habana, Cuba.

Please acknowledge receipt of this letter.

Respectfully,

WALTER WYMAN,
Surgeon-General Marine-Hospital Service.

Acting Asst. Surg. D. E. DUDLEY, M. H. S.,
United States Consulate, Vera Cruz, Mexico.

REPORT FROM VERA CRUZ.

REPORT OF TRANSACTIONS AT THE PORT OF VERA CRUZ, MEXICO, DURING THE FISCAL YEAR ENDED JUNE 30, 1901.

By Acting Asst. Surg. D. E. DUDLEY.

MARINE-HOSPITAL SERVICE,
Vera Cruz, Mexico, September 28, 1901.

SIR: I have the honor to submit the following report of the transactions of the Service at this port during the last three months of the fiscal year ending June 30, 1901.

The transfer of Acting Assistant Surgeon Hodgson in February to Progreso left the station without a medical officer until March 24. This short interim was sufficient for a general relaxation of the regulations, so that a reorganization of the work was necessary to place the Service upon its former footing.

The inspection of passengers bound for the United States, Cuba, and Porto Rico was reestablished.

Considerable prejudice existed with regard to the work of the Service here, and it was claimed that passenger and freight traffic suffered great damage during the quarantine months. I therefore made it one of my first duties to see the various merchants and representatives of transportation companies and explain our quarantine regulations. I assured them that it was the purpose of the Marine-Hospital Service

[illegible]

REPORT FROM PROGRESO.

REPORT OF TRANSACTIONS AT THE PORT OF PROGRESO, MEXICO, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. S. H. HODGSON.

MARINE-HOSPITAL SERVICE,
Progreso, Mexico, August 1, 1901.

SIR: In reply to Bureau letter of July 18, from foreign quarantine division, I have the honor to make the following report of transactions at this port from March 23 to and including June 30.

To preface the report, it is well to describe Progreso and its surroundings, and the application of quarantine regulations here by the local authorities.

Progreso, the seaport of Merida, is a village of about 4,000 inhabitants, built on a sand beach fronting the Gulf of Mexico, and surrounded by a mangrove swamp. The town is without any sewerage or drainage system, waterworks, or garbage department. The jail and custom-house are the only two public buildings, there being no hospital or place for caring for the sick.

Two railroad lines connect Progreso with Merida, and daily uninterrupted traffic is kept up between the two places, notwithstanding that smallpox has been epidemic in Merida for the past year, and yellow fever has become epidemic there during the past month.

Merida is a town of 60,000 inhabitants, and is absolutely free from any symptoms of sanitation. The streets, according to the weather, are either liquid mud or dust. Smallpox and yellow fever are considered as a matter of course, and are treated accordingly.

In Progreso there are two wharves where shallow draft vessels unload and take on cargo, but the deep-draft vessels anchor about 3 miles offshore and lighter their cargoes.

The local quarantine officers here inspect the incoming vessels, and disinfect baggage from infected ports, but put no restriction on outgoing travel.

This station is not provided with any disinfecting apparatus or boat for boarding purposes. The boarding is done in hired boats or the steam tug furnished by the steamship agent.

There is no passenger traffic between this port and any United States ports except Habana and New York. The baggage for Habana is put by itself in the ship and is disinfected in Habana. I do not know what is done to Progreso baggage in New York.

All passengers for United States ports secure at this office a health certificate before embarking. Those who can not show a good vaccination mark or signs of having had smallpox are vaccinated before being granted a certificate. So far, it has been necessary to vaccinate only eight applicants. The white certificates, yellow-fever immune, is issued to those who can produce satisfactory evidence of having had the disease or who have lived in yellow fever localities for ten years or more.

To and including June 30, 555 passengers were examined and issued health certificates. Three hundred and thirty-three were for Habana and 222 were for New York.

Seventy-seven vessels were inspected and issued bills of health.

Respectfully, yours,

S. H. HODGSON,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Progreso, Mexico, September 17, 1901.

SIR: I have the honor to forward this supplemental report of the transactions at this station for the period between June 30 and September 15.

Fifty vessels were inspected, 17 having been issued original bills of health and 33 issued supplementals.

[illegible]

REPORT FROM TAMPICO

[illegible]

every courtesy and aided me in every way possible in the discharge of my official duties. Especially is this true of Dr. A. Mateinza, the federal health officer for this port.

Respectfully, V. B. GREGORY,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

CENTRAL AND SOUTH AMERICA FRUIT PORT INSPECTION SERVICE.

FINAL REPORTS—SEASON OF 1900.

The inspection at these ports was discontinued October 31, with the exception of Bocas del Toro, Colombia, and Port Limon, Costa Rica, at which ports the officers continued in service until November 30, 1900. The following are the reports of transactions from September 15, 1900, until the close of the work at each station:

LA CEIBA.

REPORT OF TRANSACTIONS AT PORT OF LA CEIBA, HONDURAS, FROM SEPTEMBER 16 TO OCTOBER 31, 1900, INCLUSIVE.

LA CEIBA, HONDURAS, *November 1, 1900.*

SIR: I have the honor to make the following report for the period from September 16, 1900, to and including October 31, 1900, for this station: Twenty-two vessels were inspected, 7 passengers; 12 pieces of baggage were disinfected; crews inspected numbered 323; total number of persons inspected, 330.

Respectfully, SPENCER FRANKLIN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

BELIZE.

REPORT OF TRANSACTIONS AT PORT OF BELIZE, BRITISH HONDURAS, FROM SEPTEMBER 16 TO OCTOBER 31, 1900.

BELIZE, BRITISH HONDURAS, *November 1, 1900.*

SIR: During this period 6 steamers cleared for New Orleans direct and 1 for New Orleans via Vera Cruz, Mexico. Two steamers during this time cleared for Mobile. Mobile continued the passenger restriction, so that there were none for that port during this period. New Orleans relaxed on October 16, but compelled a second fumigation of all baggage at the Mississippi River Quarantine Station. Previously, however, by special permit of the State board of health, Dr. Knight, who had represented this board, and his wife, had gone to New Orleans by the steamer of September 21; 6 pieces of baggage were fumigated for them. On October 26 (after restriction was removed on 15th) I sent two passengers to New Orleans with 6 pieces fumigated. Between October 16 and 31 I sent south on these steamers 7 passengers with 4 pieces. This made a total of 4 passengers, north, with 12 pieces; and 7 passengers, south, with 4 pieces.

On September 22 an English steamer, *Sibern*, cleared for Norfolk; no passengers. On October 6 the *Taba*, also an English steamer, cleared for Norfolk; she carried 6 passengers for the United States, with 14 pieces fumigated. On October 16 the *Capella*, Harrison Line, cleared for New Orleans via Vera Cruz; no passengers.

No infection was discovered at any time during the season on any vessel in port. The city and colony have also been singularly exempt from infection. My service in Belize has been a very pleasant and satisfactory one. As the representative of the United States Marine-Hospital Service I have been the recipient of many courtesies at the hands of the people.

Respectfully, N. K. VANCE,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

BOCAS DEL TORO.

Report of Transactions at Port of Bocas del Toro, Colombia, from September 16 to November [illegible], 1900.

Bocas del Toro, Colombia, November [illegible], 1900.

Sir: I have the honor to transmit herewith report of transactions at this station from September 16, 1900, to and including November [illegible], 1900.

The number of vessels inspected clearing for ports in the United States during this period [illegible] is as follows: Cleared for New York via Port Limon, Costa Rica, 1; cleared for Baltimore, Md., [illegible]; cleared for New Orleans, La., 4; cleared for Mobile, Ala., [illegible]; total, [illegible]. Number of passengers inspected bound to New Orleans, La., 1; Mobile, Ala., [illegible]; total, [illegible]. Number of pieces of baggage disinfected, 11.

There have been [illegible] cases of yellow fever in the town of Bocas del Toro from July [illegible], 1900, to November [illegible], 1900, of which [illegible] died, [illegible] recovered, and [illegible] are still under treatment.

All the premises [illegible] infected with yellow fever [illegible] have been disinfected, [illegible] have the present occupants of [illegible] any [illegible] hygienic measures. It is [illegible] relative to the [illegible] prevailing diseases [illegible] the causes of death [illegible].

[illegible]

[illegible] States Marine Hospital [illegible]

[illegible]

[illegible]

Wm. H. [illegible]

[illegible] U. S. Marine-Hospital Service.

[illegible] Marine-Hospital Service.

PORT LIMON.

[illegible]

days, from remittent fever; September 27, an adult, 24 years of age, from remittent fever; October 1, an adult, 27 years of age, from tetanus; October 2, an adult, 49 years of age, from Bright's disease; a child, 2 years of age, from malaria; October 4, an adult, 25 years of age, from ulcer of intestines; a child, 4 months of age, from malaria; October 9, a child, 11 years of age, from inanition; October 11, a child, 8 years of age, from pneumonia; October 13, an adult, 35 years of age, from pernicious fever; an adult, 35 years of age, from tetanus; October 15, an adult, 20 years of age, from remittent fever; an adult, 30 years of age, from pernicious fever; October 16, an adult, 21 years of age, from violence (murder); October 19, an adult, 29 years of age, from heart disease; October 20, an adult, 19 years of age, from pneumonia; an adult, 32 years of age, from dysentery; October 31, an adult, 39 years of age, from peritonitis; November 1, an adult, 28 years of age, from cerebral congestion; November 5, an adult, 40 years of age, from pneumonia; November 9, an adult, 40 years of age, from paralysis; November 11, a child, 14 years of age, from pericarditis; November 12, an adult, 30 years of age, from fracture of skull. During the period there has been imported 1 case of yellow fever in the person of the captain of the *Adler*, which arrived here from Bocas del Toro, Colombia, October 25.

During the same period we have had 1 case of yellow fever in Limon, which occurred October 31. Whether this case originated in Limon or not I am unable to say. This patient is a banana receiver, whose duty is to go up and down the railroad to the interior and class bananas as they are loaded on the train. He is exposed to all conditions of weather day and night, and it is possible he may have contracted this disease somewhere on the railroad line, though I know of no yellow fever in the interior. All lots in Limon are about filled up to the grade. This work will be completed in a very few days.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[Inclosure.]

Date.	Vessel.	Master.	Number of crew.	Destination.	Number of passengers.	Number pieces baggage disinfected.
Sept. 20	Steamship Beverly	Israel	36	New Orleans	0	0
Sept. 22	Steamship Holstein	Voss	21	do	0	0
Sept. 23	Steamship Hispania	Frockberg	21	do	0	0
Sept. 27	Steamship Olympia	Seiders	40	Mobile	0	0
Sept. 29	Steamship Kitty	Montansen	18	do	0	0
Oct. 1	Steamship Alene	Long	38	New York		
Oct. 3	Steamship Adler	Reid	21	Mobile	0	0
Oct. 4	Steamship Clematis	Bulman	29	New Orleans	0	0
Oct. 5	Steamship Beverly	Israel	35	Mobile	0	0
Oct. 7	Steamship Holstein	Voss	20	do	0	0
Oct. 8	Steamship Athas	Lund	38	New York		
Oct. 10	Steamship Olympia	Seiders	38	Mobile	0	0
Oct. 12	Steamship Banes	Kalund	15	do	0	0
Oct. 15	Steamship Alleghany	Lowe	40	New York		
Oct. 16	Steamship Kitty	Mortansen	18	New Orleans	0	0
Oct. 17	Steamship Schleswig	Schluter	23	Cienfuegos	23	37
Oct. 18	Steamship Beverly	Israel	37	Mobile	0	0
Oct. 19	Steamship Hispania	Frockberg	21	do	0	0
Oct. 20	Steamship Anselm	Brown	35	do	0	0
Oct. 22	Steamship Altai	Morris	40	New York		
Oct. 25	Steamship Olympia	Seiders	39	Mobile	0	0
Oct. 28	Steamship Alabama	Severtson	17	New Orleans	0	0
Oct. 29	Steamship Alene	Long	38	New York	0	0
Oct. 31	Steamship Beverly	Israel	37	New Orleans	0	0
Nov. 2	Steamship Hispania	Frockberg	21	do	0	0
Nov. 3	Steamship Kitty	Mortansen	19	Mobile	0	0
Nov. 5	Steamship Athas	Lund	38	New York		
Nov. 8	Steamship Anselm	Brown	37	New Orleans	0	0
Nov. 10	Steamship Alabama	Severtson	17	do	0	0
Nov. 11	Steamship Olympia	Seiders	38	Mobile	0	0
Nov. 12	Steamship Alleghany	Lowe	40	New York		
Nov. 14	Steamship Beverly	Israel	38	New Orleans	6	
Nov. 15	Steamship Adler	Waite	25	New York	0	0
	Total				29	37

LIVINGSTON

REPORT FROM PROGRESO.

REPORT OF TRANSACTIONS AT THE PORT OF PROGRESO, MEXICO, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. S. H. HODGSON.

MARINE-HOSPITAL SERVICE,
Progreso, Mexico, August 1, 1901.

SIR: In reply to Bureau letter of July 18, from foreign quarantine division, I have the honor to make the following report of transactions at this port from March 23 to and including June 30.

To preface the report, it is well to describe Progreso and its surroundings, and the application of quarantine regulations here by the local authorities.

Progreso, the seaport of Merida, is a village of about 4,000 inhabitants, built on a sand beach fronting the Gulf of Mexico, and surrounded by a mangrove swamp. The town is without any sewerage or drainage system, waterworks, or garbage department. The jail and custom-house are the only two public buildings, there being no hospital or place for caring for the sick.

Two railroad lines connect Progreso with Merida, and daily uninterrupted traffic is kept up between the two places, notwithstanding that smallpox has been epidemic in Merida for the past year, and yellow fever has become epidemic there during the past month.

Merida is a town of 60,000 inhabitants, and is absolutely free from any symptoms of sanitation. The streets, according to the weather, are either liquid mud or dust. Smallpox and yellow fever are considered as a matter of course, and are treated accordingly.

In Progreso there are two wharves where shallow draft vessels unload and take on cargo, but the deep-draft vessels anchor about 3 miles offshore and lighter their cargoes.

The local quarantine officers here inspect the incoming vessels, and disinfect baggage from infected ports, but put no restriction on outgoing travel.

This station is not provided with any disinfecting apparatus or boat for boarding purposes. The boarding is done in hired boats or the steam tug furnished by the steamship agent.

There is no passenger traffic between this port and any United States ports except Habana and New York. The baggage for Habana is put by itself in the ship and is disinfected in Habana. I do not know what is done to Progreso baggage in New York.

All passengers for United States ports secure at this office a health certificate before embarking. Those who can not show a good vaccination mark or signs of having had smallpox are vaccinated before being granted a certificate. So far, it has been necessary to vaccinate only eight applicants. The white certificates, yellow-fever immune, is issued to those who can produce satisfactory evidence of having had the disease or who have lived in yellow fever localities for ten years or more.

To and including June 30, 555 passengers were examined and issued health certificates. Three hundred and thirty-three were for Habana and 222 were for New York.

Seventy-seven vessels were inspected and issued bills of health.

Respectfully, yours,

S. H. HODGSON,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Progreso, Mexico, September 17, 1901.

SIR: I have the honor to forward this supplemental report of the transactions at this station for the period between June 30 and September 15.

Fifty vessels were inspected, 17 having been issued original bills of health and 33 issued supplementals.

[illegible] and seven passengers were examined and issued health certificates [illegible] cases of malarial fever and other diseases were treated. Guard of the vessel [illegible] cases. No quarantable diseases found among any of the [illegible]

There was no case of yellow fever reported on the steamship [illegible] and the [illegible] the hospital in Merida but the subsequent course of the disease [illegible] indicate the disease was

There have been not four cases in this port during the period, and no deaths, but [illegible] yellow fever in Merida at, before the inspection of passengers and crew [illegible] necessary on account of the prevalence of that city and the absence [illegible] travel.

No [illegible] report has happened out of the regular [illegible]

[illegible]

[illegible]

REPORT FROM TAMPICO.

Report of Transactions at the Port of Tampico, Mexico, during the Fiscal Year [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

every courtesy and aided me in every way possible in the discharge of my official duties. Especially is this true of Dr. A. Mateinza, the federal health officer for this port.

Respectfully,

V. B. GREGORY,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

CENTRAL AND SOUTH AMERICA FRUIT PORT INSPECTION SERVICE.

FINAL REPORTS—SEASON OF 1900.

The inspection at these ports was discontinued October 31, with the exception of Bocas del Toro, Colombia, and Port Limon, Costa Rica, at which ports the officers continued in service until November 30, 1900. The following are the reports of transactions from September 15, 1900, until the close of the work at each station:

LA CEIBA.

REPORT OF TRANSACTIONS AT PORT OF LA CEIBA, HONDURAS, FROM SEPTEMBER 16 TO OCTOBER 31, 1900, INCLUSIVE.

LA CEIBA, HONDURAS, *November 1, 1900.*

SIR: I have the honor to make the following report for the period from September 16, 1900, to and including October 31, 1900, for this station: Twenty-two vessels were inspected, 7 passengers; 12 pieces of baggage were disinfected; crews inspected numbered 323; total number of persons inspected, 330.

Respectfully,

SPENCER FRANKLIN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

BELIZE.

REPORT OF TRANSACTIONS AT PORT OF BELIZE, BRITISH HONDURAS, FROM SEPTEMBER 16 TO OCTOBER 31, 1900.

BELIZE, BRITISH HONDURAS, *November 1, 1900.*

SIR: During this period 6 steamers cleared for New Orleans direct and 1 for New Orleans via Vera Cruz, Mexico. Two steamers during this time cleared for Mobile. Mobile continued the passenger restriction, so that there were none for that port during this period. New Orleans relaxed on October 16, but compelled a second fumigation of all baggage at the Mississippi River Quarantine Station. Previously, however, by special permit of the State board of health, Dr. Knight, who had represented this board, and his wife, had gone to New Orleans by the steamer of September 21; 6 pieces of baggage were fumigated for them. On October 26 (after restriction was removed on 15th) I sent two passengers to New Orleans with 6 pieces fumigated. Between October 16 and 31 I sent south on these steamers 7 passengers with 4 pieces. This made a total of 4 passengers, north, with 12 pieces; and 7 passengers, south, with 4 pieces.

On September 22 an English steamer, *Sibern*, cleared for Norfolk; no passengers. On October 6 the *Taba*, also an English steamer, cleared for Norfolk; she carried 6 passengers for the United States, with 14 pieces fumigated. On October 16 the *Capella*, Harrison Line, cleared for New Orleans via Vera Cruz; no passengers.

No infection was discovered at any time during the season on any vessel in port. The city and colony have also been singularly exempt from infection. My service in Belize has been a very pleasant and satisfactory one. As the representative of the United States Marine-Hospital Service I have been the recipient of many courtesies at the hands of the people.

Respectfully,

N. K. VANCE,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[illegible]

[illegible] TRANSACTIONS AT PORT OF [illegible] FROM SEPTEMBER 16 TO NOVEMBER [illegible]

[illegible], NOVEMBER [illegible]

[illegible] I have the honor to transmit herewith report of transactions at this station from September 16, [illegible] to and including November [illegible]

[illegible] vessels inspected clearing for ports in the United States during the period [illegible] cleared for New York, [illegible] Port Limon, Costa Rica, [illegible] cleared for New Orleans, [illegible] cleared for Mobile, [illegible] Number of passengers inspected bound to New Orleans, [illegible] Number of pieces of baggage disinfected [illegible]

[illegible] have been attacked with yellow fever [illegible] from July [illegible] November [illegible] of which [illegible] died and [illegible] are under treatment.

[illegible] have been disinfected, [illegible] have been disinfected in a few days [illegible] of [illegible] relative to the [illegible]

[illegible] Marine Hospital [illegible]

[illegible]

[illegible] Wm. H. [illegible]

[illegible] W. [illegible]

[illegible] Marine Hospital Service.

PORT LIMON.

[illegible] Transactions at Port Limon [illegible] November [illegible]

[illegible]

[illegible] November [illegible]

[illegible] Bonded Line steamer [illegible]

[illegible] arriving from [illegible]

[illegible] have been [illegible] the [illegible] from [illegible] of age from [illegible] international [illegible] 18 months [illegible] Panama [illegible] Limon [illegible]

days, from remittent fever; September 27, an adult, 24 years of age, from remittent fever; October 1, an adult, 27 years of age, from tetanus; October 2, an adult, 49 years of age, from Bright's disease; a child, 2 years of age, from malaria; October 4, an adult, 25 years of age, from ulcer of intestines; a child, 4 months of age, from malaria; October 9, a child, 11 years of age, from inanition; October 11, a child, 8 years of age, from pneumonia; October 13, an adult, 35 years of age, from pernicious fever; an adult, 35 years of age, from tetanus; October 15, an adult, 20 years of age, from remittent fever; an adult, 30 years of age, from pernicious fever; October 16, an adult, 21 years of age, from violence (murder); October 19, an adult, 29 years of age, from heart disease; October 20, an adult, 19 years of age, from pneumonia; an adult, 32 years of age, from dysentery; October 31, an adult, 39 years of age, from peritonitis; November 1, an adult, 28 years of age, from cerebral congestion; November 5, an adult, 40 years of age, from pneumonia; November 9, an adult, 40 years of age, from paralysis; November 11, a child, 14 years of age, from pericarditis; November 12, an adult, 30 years of age, from fracture of skull. During the period there has been imported 1 case of yellow fever in the person of the captain of the *Adler*, which arrived here from Bocas del Toro, Colombia, October 25.

During the same period we have had 1 case of yellow fever in Limon, which occurred October 31. Whether this case originated in Limon or not I am unable to say. This patient is a banana receiver, whose duty is to go up and down the railroad to the interior and class bananas as they are loaded on the train. He is exposed to all conditions of weather day and night, and it is possible he may have contracted this disease somewhere on the railroad line, though I know of no yellow fever in the interior. All lots in Limon are about filled up to the grade. This work will be completed in a very few days.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[Inclosure.]

Date.	Vessel.	Master.	Number of crew.	Destination.	Number of passengers.	Number pieces baggage disinfected.
Sept. 20	Steamship Beverly	Israel	36	New Orleans	0	0
Sept. 22	Steamship Holstein	Voss	21	do	0	0
Sept. 23	Steamship Hispania	Frockberg	21	do	0	0
Sept. 27	Steamship Olympia	Seiders	40	Mobile	0	0
Sept. 29	Steamship Kitty	Montansen	18	do	0	0
Oct. 1	Steamship Alene	Long	38	New York		
Oct. 3	Steamship Adler	Reid	24	Mobile	0	0
Oct. 4	Steamship Clematis	Bulman	29	New Orleans	0	0
Oct. 5	Steamship Beverly	Israel	35	Mobile	0	0
Oct. 7	Steamship Holstein	Voss	20	do	0	0
Oct. 8	Steamship Athas	Lund	38	New York		
Oct. 10	Steamship Olympia	Seiders	38	Mobile	0	0
Oct. 12	Steamship Banes	Kaland	15	do	0	0
Oct. 15	Steamship Alleghany	Lowe	40	New York		
Oct. 16	Steamship Kitty	Mortansen	18	New Orleans	0	0
Oct. 17	Steamship Schleswig	Schluter	23	Clenfuegos	23	37
Oct. 18	Steamship Beverly	Israel	37	Mobile	0	0
Oct. 19	Steamship Hispania	Frockberg	21	do	0	0
Oct. 20	Steamship Anselm	Brown	35	do	0	0
Oct. 22	Steamship Altai	Morris	40	New York		
Oct. 25	Steamship Olympia	Seiders	39	Mobile	0	0
Oct. 28	Steamship Alabama	Severtson	17	New Orleans	0	0
Oct. 29	Steamship Alene	Long	38	New York	0	0
Oct. 31	Steamship Beverly	Israel	37	New Orleans	0	0
Nov. 2	Steamship Hispania	Frockberg	21	do	0	0
Nov. 3	Steamship Kitty	Mortansen	19	Mobile	0	0
Nov. 5	Steamship Athas	Lund	38	New York		
Nov. 8	Steamship Anselm	Brown	37	New Orleans	0	0
Nov. 10	Steamship Alabama	Severtson	17	do	0	0
Nov. 11	Steamship Olympia	Seiders	38	Mobile	0	0
Nov. 12	Steamship Alleghany	Lowe	40	New York		
Nov. 14	Steamship Beverly	Israel	38	New Orleans	6	
Nov. 15	Steamship Adler	Waite	25	New York	0	0
	Total				29	37

DIVISION

[illegible]

[illegible]

FLORIDA

[illegible]

[illegible]

[illegible]

[illegible]

SEASON OF 1901 - REESTABLISHMENT OF FRUIT PORT INSPECTION.

On April 1, 1901, the inspection was reestablished at the fruit ports of Central and South America by the following detail of medical officers: R. H. Peters, La Ceiba, Honduras; J. Grey Thomas, Belize, British Honduras; Paul Osterhout, Bocas del Toro, Colombia; D. W. Goodman, Port Limon, Costa Rica; W. K. Fort, Livingston, Guatemala; W. H. Carson, Bluefields, Nicaragua; S. H. Backus, Puerto Cortez, Honduras.

REGULATIONS FOR GOVERNMENT OF FRUIT VESSELS.

These officers carry out their duties under the regulations prescribed in the following circular:

[Circular.]

SPECIAL REGULATIONS FOR THE GOVERNMENT OF VESSELS PLYING BETWEEN INFECTED OR SUSPECTED FRUIT PORTS AND PORTS OF THE UNITED STATES.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL M. H. S.,
Washington, D. C., August 31, 1900.

To United States Consular Officers, Masters and Owners of Vessels, Collectors of Customs, National, State, and Local Quarantine Officers, and others:

To permit vessels from foreign ports with perishable cargoes of fruit to enter ports of the United States without detention in accordance with the provisions of the quarantine regulations, November 13, 1899, the following special regulations are promulgated, and will be enforced at the ports of departure:

SPECIAL RULES AND REGULATIONS FOR VESSELS ENGAGED IN THE FRUIT TRADE BETWEEN FOREIGN PORTS SUSPECTED OF BEING INFECTED WITH YELLOW FEVER AND PORTS OF THE UNITED STATES.

1. None of the crew shall be allowed to go on land, except the captain.
2. No one from the shore shall visit the boat, except the quarantine officers, customs officers, and agent of the company which charters the ship.
3. All laborers who may be taken on the ship for loading purposes must have all their baggage disinfected before boarding the vessel, and must have no intercourse with the shore subsequent to their entry upon the vessel until their final discharge therefrom.
4. No intercourse is to be allowed with persons on shore, except as provided in the preceding paragraphs.
5. No vessel in the harbor shall lie at any wharf, except as provided in special cases; but must be anchored in the river or harbor in midstream, and lighters, having been loaded by natives ashore, may be unloaded onto the ship by the laborers whose clothing has been disinfected.
6. The ships, if going up a river or harbor for fruit, shall not be allowed to bring any passengers down the river on their return.
7. All passengers must embark from the regular ports and must have been under the observation of the sanitary inspector of the United States for at least ten days prior to the departure of the ship and be provided with his certificate to that effect. Immediately preceding their embarkation their baggage must be disinfected in accordance with the quarantine regulations of November 13, 1899, the most convenient methods being six hours' exposure to formaldehyde gas or twenty-four hours' exposure to sulphur dioxide gas in a closed chamber, the clothing being hung up on lines for the better penetration of the gas. Under no circumstances shall any passengers be allowed to carry bedding or household [illegible]. Where passengers come from elevated and noninfectible points in the int[illegible] coast towns for embarkation they should not be required to pass the te[illegible] of observation in the low places because of the d[illegible] developin[illegible] other tropical fevers. They should be required to [illegible] tificate fr[illegible] States consul [illegible] physician, stating th[illegible] [illegible] such physician [illegible] infectible interior poi[illegible] [illegible] Their [illegible] should [illegible] [illegible] [illegible] [illegible] [illegible] Mary[illegible]

was due to the United Fruit Company withdrawing its steamers from this coast during July and part of the month of August. Of the 27 vessels cleared 24 were for New Orleans, 1 for Mobile, 1 for Tampa, and 1 for New York.

The health of Ceiba remains satisfactory. There has been very little sickness during the season.

Respectfully,

R. H. PETERS,
Acting Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

BELIZE.

REPORT OF TRANSACTIONS AT THE PORT OF BELIZE, BRITISH HONDURAS, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. J. GREY THOMAS.

MARINE-HOSPITAL SERVICE,
Belize, British Honduras, July 31, 1901.

SIR: I have the honor to submit report of transactions at this port from April 1, 1901, to June 30, 1901, inclusive:

From the inclosure it will be seen that I have issued certificates to 34 vessels leaving for the United States, inspected 855 crew, issued certificates to 122 passengers from Belize, inspected 158 passengers in transit, making a total of 280; have disinfected 260 pieces of baggage. I have also issued certificates to 56 passengers bound for Port Barrios and Port Cortez; also disinfected 133 pieces baggage for these ports.

The sanitary conditions for the period have been good. There have been 66 deaths, none of a quarantinable nature.

All baggage is exposed to formaldehyde gas at least six hours. Certificates are issued to each passenger before buying his ticket. Without this no tickets can be issued. The two in his possession entitle him to board the vessel. All baggage is labeled, and these seals are not broken until after the departure of the vessel.

All vessels anchor from 1 to 2 miles from shore, the harbor being too shallow to permit them coming to the town.

Inclosed find copies of blank forms issued to vessels and passengers.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Belize, British Honduras, September 16, 1901.

SIR: I have the honor to submit report of transactions at this station from July 1, 1901, to and including September 15, 1901.

From the inclosure it will be seen that I have issued certificates to 32 vessels leaving for the United States, inspected 180 men composing crews of vessels, issued certificates to 71 passengers from Belize, inspected 147 passengers in transit, making a total of 221, and have disinfected 153 pieces of baggage.

I have also issued certificates to 54 passengers bound for Port Barrios and Port Cortez, and have also disinfected 104 pieces of baggage for these ports.

The sanitary conditions for the period have been good. There have been 42 deaths, none of a quarantinable nature.

All baggage is exposed to formaldehyde gas for at least six hours; it is then sealed and permitted to go aboard ship.

Certificates are issued to each passenger, and without this he is unable to obtain his steamer ticket.

All vessels anchor from 1 to 2 miles from the shore.

Inclosed find copies of certificates issued to vessels and passengers.

My report from April 1 to June 30, inclusive, was forwarded on July 31, 1901.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

This is also applicable to the representatives of the companies and to the pilot, as well as to the representatives of the quarantine service.

The custom-house guard remains on the vessel during her trip to load fruit in the lagoon and until her final departure from this port.

Laborers and their effects.—The different companies furnish a suit of overalls, of a uniform color and material, to be worn by the men employed to stow the cargo. This is washed after each trip, and when dry is brought to the disinfecting chamber and given twelve hours' exposure to formaldehyde gas.

In case the vessel is going to New Orleans, the disinfecting is done with the Kinyoun-Francis disinfector; the clothing is placed in the steam chamber and a temperature 240° F. maintained for thirty minutes; care is exercised that all articles liable to damage are excluded and subjected to formaldehyde disinfection. This is generally done in the morning, and at night the clothing is removed to the dressing room, assorted, and hung up by number. The next morning the laborers gather at the dressing room, and remove their outer garments (keeping on only their undershirts and drawers), put on the fumigated suits, enter a barge, and are towed to the vessel. As the vessel is compelled to make a trip to other parts of the lagoon to procure her cargo, and the laborers are exposed to rain, etc., it becomes necessary for them to carry extra clothing. This clothing, also fumigated, is placed in a bag and sealed by me, to be delivered on board the vessel for distribution. I personally attend to all the fumigation, see that the laborers' clothing is changed, and accompany the barge to the vessel.

Boarding of vessels.—All vessels are boarded by me on their arrival here, prior to their departure to the lagoon to load fruit. It requires from twenty-four to thirty hours in the lagoon, after which they return to this point and are again boarded by me before sailing. The consular bill of health is then signed; a certificate, form No. 149, is issued conjointly with the bill of health.

During the time that the vessels are in the lagoon they are entirely from under my observation.

Suggestions for the improvement of the Service.—I would respectfully suggest that this station be furnished with a galvanized metallic rowboat about 14 feet long, to be used in boarding vessels. Although the fruit companies are very accommodating, the work of the station can be facilitated and much delay avoided.

As there are many vessels engaged in the fruit trade directly with southern ports of the United States, the work of the Marine-Hospital Service can be much better carried out if an appropriation of $75 per month be allowed this station for the employment of a man to aid in watching the vessels while in port, in order to prevent communication with the shore, to assist in seeing that the clothing of the laborers is changed, and that nothing is taken on board vessels unless previously fumigated.

The employment of this extra help was suggested in a report by Wm. H. Carson, acting assistant surgeon, at this port under date of November 20, 1900.

Respectfully,

PAUL OSTERHOUT,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Bocas del Toro, Republic of Colombia, September 17, 1901.

SIR: I have the honor to acknowledge receipt of Bureau letter, dated September 6, 1901, requesting prompt attention in forwarding the supplemental report of the transactions at this station from July 1, to September 15, 1901, inclusive.

Complying with this request I herewith submit the following report:

Number of vessels inspected	29
Number of persons inspected:	
Ships' crews	589
Passengers	1
Number of pieces of baggage disinfected	2

Infectious and contagious diseases.—There have been 10 known cases of yellow fever at this place, as follows: 2 deaths and 8 recoveries. These cases occurred in the period embraced between June 23 and August 21, 1901.

Respectfully,

PAUL OSTERHOUT,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

PORT TIMON

[illegible]

By Acting Asst. Surg. D. W. [illegible]

MARINE-HOSPITAL SERVICE

[illegible]

days, from remittent fever; September 27, an adult, 24 years of age, from remittent fever; October 1, an adult, 27 years of age, from tetanus; October 2, an adult, 49 years of age, from Bright's disease; a child, 2 years of age, from malaria; October 4, an adult, 25 years of age, from ulcer of intestines; a child, 4 months of age, from malaria; October 9, a child, 11 years of age, from inanition; October 11, a child, 8 years of age, from pneumonia; October 13, an adult, 35 years of age, from pernicious fever; an adult, 35 years of age, from tetanus; October 15, an adult, 20 years of age, from remittent fever; an adult, 30 years of age, from pernicious fever; October 16, an adult, 21 years of age, from violence (murder); October 19, an adult, 29 years of age, from heart disease; October 20, an adult, 19 years of age, from pneumonia; an adult, 32 years of age, from dysentery; October 31, an adult, 39 years of age, from peritonitis; November 1, an adult, 28 years of age, from cerebral congestion; November 5, an adult, 40 years of age, from pneumonia; November 9, an adult, 40 years of age, from paralysis; November 11, a child, 14 years of age, from pericarditis; November 12, an adult, 30 years of age, from fracture of skull. During the period there has been imported 1 case of yellow fever in the person of the captain of the *Adler*, which arrived here from Bocas del Toro, Colombia, October 25.

During the same period we have had 1 case of yellow fever in Limon, which occurred October 31. Whether this case originated in Limon or not I am unable to say. This patient is a banana receiver, whose duty is to go up and down the railroad to the interior and class bananas as they are loaded on the train. He is exposed to all conditions of weather day and night, and it is possible he may have contracted this disease somewhere on the railroad line, though I know of no yellow fever in the interior. All lots in Limon are about filled up to the grade. This work will be completed in a very few days.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[Inclosure.]

Date.	Vessel.	Master.	Number of crew.	Destination.	Number of passengers.	Number pieces baggage disinfected.
Sept. 20	Steamship Beverly	Israel	36	New Orleans	0	0
Sept. 22	Steamship Holstein	Voss	21	do	0	0
Sept. 23	Steamship Hispania	Frockberg	21	do	0	0
Sept. 27	Steamship Olympia	Seiders	40	Mobile	0	0
Sept. 29	Steamship Kitty	Montansen	18	do	0	0
Oct. 1	Steamship Alene	Long	38	New York		
Oct. 3	Steamship Adler	Reid	24	Mobile	0	0
Oct. 4	Steamship Clematis	Bulman	29	New Orleans	0	0
Oct. 5	Steamship Beverly	Israel	35	Mobile	0	0
Oct. 7	Steamship Holstein	Voss	20	do	0	0
Oct. 8	Steamship Athas	Lund	38	New York		
Oct. 10	Steamship Olympia	Seiders	38	Mobile	0	0
Oct. 12	Steamship Banes	Kaland	15	do	0	0
Oct. 15	Steamship Alleghany	Lowe	40	New York		
Oct. 16	Steamship Kitty	Mortansen	18	New Orleans	0	0
Oct. 17	Steamship Schleswig	Schluter	23	Cienfuegos	23	37
Oct. 18	Steamship Beverly	Israel	37	Mobile	0	0
Oct. 19	Steamship Hispania	Frockberg	21	do	0	0
Oct. 20	Steamship Anselm	Brown	35	do	0	0
Oct. 22	Steamship Altai	Morris	40	New York		
Oct. 25	Steamship Olympia	Seiders	39	Mobile	0	0
Oct. 28	Steamship Alabama	Severtson	17	New Orleans	0	0
Oct. 29	Steamship Alene	Long	38	New York	0	0
Oct. 31	Steamship Beverly	Israel	37	New Orleans	0	0
Nov. 2	Steamship Hispania	Frockberg	21	do	0	0
Nov. 3	Steamship Kitty	Mortansen	19	Mobile	0	0
Nov. 5	Steamship Athas	Lund	38	New York		
Nov. 8	Steamship Anselm	Brown	37	New Orleans	0	0
Nov. 10	Steamship Alabama	Severtson	17	do	0	0
Nov. 11	Steamship Olympia	Seiders	38	Mobile	0	0
Nov. 12	Steamship Alleghany	Lowe	40	New York		
Nov. 14	Steamship Beverly	Israel	38	New Orleans	6	
Nov. 15	Steamship Adler	Waite	25	New York	0	0
	Total				29	37

LIVINGSTON.

[illegible]

BLUEFIELDS.

[illegible]

PUERTO CORTEZ.

[illegible]

SEASON OF 1901—REESTABLISHMENT OF FRUIT PORT INSPECTION.

On April 1, 1901, the inspection was reestablished at the fruit ports of Central and South America by the following detail of medical officers: R. H. Peters, La Ceiba, Honduras; J. Grey Thomas, Belize, British Honduras; Paul Osterhout, Bocas del Toro, Colombia; D. W. Goodman, Port Limon, Costa Rica; W. K. Fort, Livingston, Guatemala; W. H. Carson, Bluefields, Nicaragua; S. H. Backus, Puerto Cortez, Honduras.

REGULATIONS FOR GOVERNMENT OF FRUIT VESSELS.

These officers carry out their duties under the regulations prescribed in the following circular:

[Circular.]

SPECIAL REGULATIONS FOR THE GOVERNMENT OF VESSELS PLYING BETWEEN INFECTED OR SUSPECTED FRUIT PORTS AND PORTS OF THE UNITED STATES.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL M. H. S.,
Washington, D. C., August 31, 1900.

To United States Consular Officers, Masters and Owners of Vessels, Collectors of Customs, National, State, and Local Quarantine Officers, and others:

To permit vessels from foreign ports with perishable cargoes of fruit to enter ports of the United States without detention in accordance with the provisions of the quarantine regulations, November 13, 1899, the following special regulations are promulgated, and will be enforced at the ports of departure:

SPECIAL RULES AND REGULATIONS FOR VESSELS ENGAGED IN THE FRUIT TRADE BETWEEN FOREIGN PORTS SUSPECTED OF BEING INFECTED WITH YELLOW FEVER AND PORTS OF THE UNITED STATES.

1. None of the crew shall be allowed to go on land, except the captain.
2. No one from the shore shall visit the boat, except the quarantine officers, customs officers, and agent of the company which charters the ship.
3. All laborers who may be taken on the ship for loading purposes must have all their baggage disinfected before boarding the vessel, and must have no intercourse with the shore subsequent to their entry upon the vessel until their final discharge therefrom.
4. No intercourse is to be allowed with persons on shore, except as provided in the preceding paragraphs.
5. No vessel in the harbor shall lie at any wharf, except as provided in special cases; but must be anchored in the river or harbor in midstream, and lighters, having been loaded by natives ashore, may be unloaded onto the ship by the laborers whose clothing has been disinfected.
6. The ships, if going up a river or harbor for fruit, shall not be allowed to bring any passengers down the river on their return.
7. All passengers must embark from the regular ports and must have been under the observation of the sanitary inspector of the United States for at least ten days prior to the departure of the ship and be provided with his certificate to that effect. Immediately preceding their embarkation their baggage must be disinfected in accordance with the quarantine regulations of November 13, 1899, the most convenient methods being six hours' exposure to formaldehyde gas or twenty-four hours' exposure to sulphur dioxide gas in a closed chamber, the clothing being hung up on lines for the better penetration of the gas. Under no circumstances shall any passengers be allowed to carry bedding or household effects. Where passengers come from elevated and noninfectible points in the interior to low coast towns for embarkation they should not be required to pass the ten days' period of observation in the latter places because of the danger of developing malarial or other tropical fevers. They should be required to bring a certificate from the United States consul or a reliable physician, stating that they have been under observation at such elevated and noninfectible interior point for ten days immediately preceding their arrival at coast towns. Their baggage should then be disinfected and they should be allowed to proceed without detention. Passengers taking ships bound direct to points north of the southern boundary of Maryland need not be detained.

was due to the United Fruit Company withdrawing its steamers from this coast during July and part of the month of August. Of the 27 vessels cleared 24 were for New Orleans, 1 for Mobile, 1 for Tampa, and 1 for New York.

The health of Ceiba remains satisfactory. There has been very little sickness during the season.

Respectfully,

R. H. PETERS,
Acting Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

BELIZE.

REPORT OF TRANSACTIONS AT THE PORT OF BELIZE, BRITISH HONDURAS, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. J. GREY THOMAS.

MARINE-HOSPITAL SERVICE,
Belize, British Honduras, July 31, 1901.

SIR: I have the honor to submit report of transactions at this port from April 1, 1901, to June 30, 1901, inclusive:

From the inclosure it will be seen that I have issued certificates to 34 vessels leaving for the United States, inspected 855 crew, issued certificates to 122 passengers from Belize, inspected 158 passengers in transit, making a total of 280; have disinfected 260 pieces of baggage. I have also issued certificates to 56 passengers bound for Port Barrios and Port Cortez; also disinfected 133 pieces baggage for these ports.

The sanitary conditions for the period have been good. There have been 66 deaths, none of a quarantinable nature.

All baggage is exposed to formaldehyde gas at least six hours. Certificates are issued to each passenger before buying his ticket. Without this no tickets can be issued. The two in his possession entitle him to board the vessel. All baggage is labeled, and these seals are not broken until after the departure of the vessel.

All vessels anchor from 1 to 2 miles from shore, the harbor being too shallow to permit them coming to the town.

Inclosed find copies of blank forms issued to vessels and passengers.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Belize, British Honduras, September 16, 1901.

SIR: I have the honor to submit report of transactions at this station from July 1, 1901, to and including September 15, 1901.

From the inclosure it will be seen that I have issued certificates to 32 vessels leaving for the United States, inspected 180 men composing crews of vessels, issued certificates to 74 passengers from Belize, inspected 147 passengers in transit, making a total of 221, and have disinfected 153 pieces of baggage.

I have also issued certificates to 54 passengers bound for Port Barrios and Port Cortez, and have also disinfected 104 pieces of baggage for these ports.

The sanitary conditions for the period have been good. There have been 42 deaths, none of a quarantinable nature.

All baggage is exposed to formaldehyde gas for at least six hours; it is then sealed and permitted to go aboard ship.

Certificates are issued to each passenger, and without this he is unable to obtain his steamer ticket.

All vessels anchor from 1 to 2 miles from the shore.

Inclosed find copies of certificates issued to vessels and passengers.

My report from April 1 to June 30, inclusive, was forwarded on July 31, 1901.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[illegible]

This is also applicable to the representatives of the companies and to the pilot, as well as to the representatives of the quarantine service.

The custom-house guard remains on the vessel during her trip to load fruit in the lagoon and until her final departure from this port.

Laborers and their effects.—The different companies furnish a suit of overalls, of a uniform color and material, to be worn by the men employed to stow the cargo. This is washed after each trip, and when dry is brought to the disinfecting chamber and given twelve hours' exposure to formaldehyde gas.

In case the vessel is going to New Orleans, the disinfecting is done with the Kinyoun-Francis disinfector; the clothing is placed in the steam chamber and a temperature 240° F. maintained for thirty minutes; care is exercised that all articles liable to damage are excluded and subjected to formaldehyde disinfection. This is generally done in the morning, and at night the clothing is removed to the dressing room, assorted, and hung up by number. The next morning the laborers gather at the dressing room, and remove their outer garments (keeping on only their undershirts and drawers), put on the fumigated suits, enter a barge, and are towed to the vessel. As the vessel is compelled to make a trip to other parts of the lagoon to procure her cargo, and the laborers are exposed to rain, etc., it becomes necessary for them to carry extra clothing. This clothing, also fumigated, is placed in a bag and sealed by me, to be delivered on board the vessel for distribution. I personally attend to all the fumigation, see that the laborers' clothing is changed, and accompany the barge to the vessel.

Boarding of vessels.—All vessels are boarded by me on their arrival here, prior to their departure to the lagoon to load fruit. It requires from twenty-four to thirty hours in the lagoon, after which they return to this point and are again boarded by me before sailing. The consular bill of health is then signed; a certificate, form No. 149, is issued conjointly with the bill of health.

During the time that the vessels are in the lagoon they are entirely from under my observation.

Suggestions for the improvement of the Service.—I would respectfully suggest that this station be furnished with a galvanized metallic rowboat about 14 feet long, to be used in boarding vessels. Although the fruit companies are very accommodating, the work of the station can be facilitated and much delay avoided.

As there are many vessels engaged in the fruit trade directly with southern ports of the United States, the work of the Marine-Hospital Service can be much better carried out if an appropriation of $75 per month be allowed this station for the employment of a man to aid in watching the vessels while in port, in order to prevent communication with the shore, to assist in seeing that the clothing of the laborers is changed, and that nothing is taken on board vessels unless previously fumigated.

The employment of this extra help was suggested in a report by Wm. H. Carson, acting assistant surgeon, at this port under date of November 20, 1900.

Respectfully,

PAUL OSTERHOUT,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Bocas del Toro, Republic of Colombia, September 17, 1901.

SIR: I have the honor to acknowledge receipt of Bureau letter, dated September 6, 1901, requesting prompt attention in forwarding the supplemental report of the transactions at this station from July 1, to September 15, 1901, inclusive.

Complying with this request I herewith submit the following report:

Number of vessels inspected	29
Number of persons inspected:	
Ships' crews	589
Passengers	1
Number of pieces of baggage disinfected	2

Infections and contagious diseases.—There have been 10 known cases of yellow fever at this place, as follows: 2 deaths and 8 recoveries. These cases occurred in the period embraced between June 23 and August 21, 1901.

Respectfully,

PAUL OSTERHOUT,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

PORT LIMON

[illegible]

[illegible]

[illegible]

Limon is far from being a healthful place, for while the central or business portion has paved streets and sidewalks, kept in a good sanitary condition, the outskirts are swampy, badly drained, and in a very unsanitary condition.

A system of underground sewers has been constructed, without however sufficient fall to empty themselves, and no provision has been made for flushing. Again, only a small portion of the buildings are connected with the system; the others continue to use surface closets, which are rarely cleaned.

For the three months 56 deaths have occurred, which, with the estimated population of 4,000, gives an annual death rate per thousand of 56. Malarial fever in its various forms, intestinal troubles, and tuberculosis, in the order named, are the causes of most of the deaths.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Port Limon, Costa Rica, September 16, 1901.

SIR: Pursuant to directions in Bureau letter of July 18, 1901, and as supplementary to my report of July 29, 1901, I have to make the following report of the transactions at this station from July 1 to September 15, 1901, inclusive:

To 60 steamships have bills of health been given, after inspection of them and their crews.

On account of the continued presence of yellow fever at this port there has been no passenger traffic with the Southern ports of the United States, hence no baggage, thus limiting disinfection to the clothes worn by the laborers on the fruit vessels while in this port. This has been done with great care, and as these laborers are the only persons from Limon allowed to go aboard the ships, and none from the ships to come ashore, there is very little risk of infection being conveyed to the crew or vessel. Another point of safety worthy of notice is that all these laborers, without exception, are Jamaican negroes. I insisted upon this of the managers of the fruit companies at the beginning of the quarantine season, as I believe those negroes are practically immune to yellow fever.

Limon, with an estimated population of 4,000, had from July 1 to September 15, 1901, 76 deaths from all causes, principally as follows:

Yellow fever (41 cases)	16
Malarial fever (including haemoglobinuria)	18
Intestinal disorders in children	8
Pneumonia and bronchitis	4
Dysentery (probably malarial)	4
Tuberculosis	3
Typhoid fever	3
Other causes	20
Total	76

These figures would give the annual death rate per thousand of 90. Making all allowance for the sick who are brought here to die, for the lack of personal hygiene and cleanliness among many of the inhabitants, the fact remains that Limon is not a healthful place.

There has been no smallpox or other infectious diseases save as above mentioned.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

LIVINGSTON.

REPORT OF TRANSACTIONS AT THE PORT OF LIVINGSTON, GUATEMALA, DURING THE FISCAL YEAR ENDING JUNE 30, 1901, AND SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. W. K. Foot.

LIVINGSTON, GUATEMALA, [illegible]

SIR: I have the honor to submit herewith report of transactions at this station during the period from April 1, 1901, to June 30, 1901, inclusive.

Respectfully,

W. K. Foot,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The Surgeon-General, Marine-Hospital Service.

[illegible]

[illegible]	[illegible]	[illegible]
[illegible]	Bather	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bather	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bather	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]	Bather	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]	Manager	[illegible]
[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

W. K. Foot,
[illegible] Assistant Surgeon, U. S. Marine-Hospital Service.

[illegible] Marine-Hospital Service.

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]	Manager	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bather	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	Manager	[illegible]
[illegible]	Bargeman	[illegible]
[illegible]		

[illegible]

Number of pieces of baggage disinfected [illegible]

BLUEFIELDS.

REPORT OF TRANSACTIONS AT THE PORT OF BLUEFIELDS, NICARAGUA, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. WM. H. CARSON.

MARINE-HOSPITAL SERVICE,
BLUEFIELDS, NICARAGUA, *August 1, 1901.*

SIR: I have the honor to transmit herewith, in compliance with instructions in Bureau letter dated July 19, 1901, and received here July 30, 1901, my report of the transactions at this station from the time operations were begun in the spring to and including June 30, 1901.

Work was begun at this station April 3, 1901.

The equipment at my disposal consists of one autoclave (formaldehyde generator) and lamp, also one carboy of formaldehyde mixture.

There are no employees at this station; all the assistance required in handling baggage, and laborers' clothing for disinfection, being furnished by the Bluefields Steamship Company, Limited.

Disinfection of passengers' baggage, as well as the clothing worn by the laboring fruit crew taken from this port to the "fruiters," is done in a closed room, conveniently located near to the water's edge, and subjected to more than six hours' exposure to formaldehyde gas. Bedding and household effects are prohibited.

Vessels are boarded off "Bluefields Bluff," 5 miles distant and opposite the town of Bluefields—the depth of water in the lagoon not permitting nearer approach of seagoing vessels to the town.

The fruit company furnish a small steamer which transfers passengers and disinfected baggage from the town (Bluefields) to the custom-house, at "Bluefields Bluff," where passengers' baggage is inspected by the Nicaraguan port officials and then transferred to the steamers anchored out in the bay.

All baggage is transferred from the disinfecting room to the small steamer previously mentioned, a very short distance, and there is but little if any danger of reinfection of baggage en route to the ship.

The following statistics are herewith furnished:

Number of vessels inspected	29
Number of crew inspected	343
Number of passengers inspected	85
Total number of persons inspected	428
Number of pieces of baggage inspected	129
Number of pieces of baggage disinfected	129

I inclose herewith copies of the blank forms now in use by me.

Respectfully,

WM. H. CARSON,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Bluefields, Nicaragua, September 16, 1901.

SIR: I have the honor to transmit herewith, in compliance with Bureau letter dated July 19, 1901, my supplemental report of the transactions at this station covering the period from July 1, 1901, to and including September 15, 1901.

The following statistics are herewith furnished:

Vessels inspected	17
Crew inspected	278
Passengers inspected	60
Total	338
Pieces of baggage inspected	92
Pieces of baggage disinfected	92

[illegible]

PUERTO CORTEZ

[illegible]

was due to the United Fruit Company withdrawing its steamers from this coast during July and part of the month of August. Of the 27 vessels cleared 24 were for New Orleans, 1 for Mobile, 1 for Tampa, and 1 for New York.

The health of Ceiba remains satisfactory. There has been very little sickness during the season.

Respectfully,

R. H. PETERS,
Acting Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

BELIZE.

REPORT OF TRANSACTIONS AT THE PORT OF BELIZE, BRITISH HONDURAS, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. J. GREY THOMAS.

MARINE-HOSPITAL SERVICE,
Belize, British Honduras, July 31, 1901.

SIR: I have the honor to submit report of transactions at this port from April 1, 1901, to June 30, 1901, inclusive:

From the inclosure it will be seen that I have issued certificates to 34 vessels leaving for the United States, inspected 855 crew, issued certificates to 122 passengers from Belize, inspected 158 passengers in transit, making a total of 280; have disinfected 260 pieces of baggage. I have also issued certificates to 56 passengers bound for Port Barrios and Port Cortez; also disinfected 133 pieces baggage for these ports.

The sanitary conditions for the period have been good. There have been 66 deaths, none of a quarantinable nature.

All baggage is exposed to formaldehyde gas at least six hours. Certificates are issued to each passenger before buying his ticket. Without this no tickets can be issued. The two in his possession entitle him to board the vessel. All baggage is labeled, and these seals are not broken until after the departure of the vessel.

All vessels anchor from 1 to 2 miles from shore, the harbor being too shallow to permit them coming to the town.

Inclosed find copies of blank forms issued to vessels and passengers.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Belize, British Honduras, September 16, 1901.

SIR: I have the honor to submit report of transactions at this station from July 1, 1901, to and including September 15, 1901.

From the inclosure it will be seen that I have issued certificates to 32 vessels leaving for the United States, inspected 180 men composing crews of vessels, issued certificates to 74 passengers from Belize, inspected 147 passengers in transit, making a total of 221, and have disinfected 153 pieces of baggage.

I have also issued certificates to 54 passengers bound for Port Barrios and Port Cortez, and have also disinfected 104 pieces of baggage for these ports.

The sanitary conditions for the period have been good. There have been 42 deaths, none of a quarantinable nature.

All baggage is exposed to formaldehyde gas for at least six hours; it is then sealed and permitted to go aboard ship.

Certificates are issued to each passenger, and without this he is unable to obtain his steamer ticket.

All vessels anchor from 1 to 2 miles from the shore.

Inclosed find copies of certificates issued to vessels and passengers.

My report from April 1 to June 30, inclusive, was forwarded on July 31, 1901.

Respectfully,

J. GREY THOMAS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[illegible]

This is also applicable to the representatives of the companies and to the pilot, as well as to the representatives of the quarantine service.

The custom-house guard remains on the vessel during her trip to load fruit in the lagoon and until her final departure from this port.

Laborers and their effects.—The different companies furnish a suit of overalls, of a uniform color and material, to be worn by the men employed to stow the cargo. This is washed after each trip, and when dry is brought to the disinfecting chamber and given twelve hours' exposure to formaldehyde gas.

In case the vessel is going to New Orleans, the disinfecting is done with the Kinyoun-Francis disinfector; the clothing is placed in the steam chamber and a temperature 240° F. maintained for thirty minutes; care is exercised that all articles liable to damage are excluded and subjected to formaldehyde disinfection. This is generally done in the morning, and at night the clothing is removed to the dressing room, assorted, and hung up by number. The next morning the laborers gather at the dressing room, and remove their outer garments (keeping on only their undershirts and drawers), put on the fumigated suits, enter a barge, and are towed to the vessel. As the vessel is compelled to make a trip to other parts of the lagoon to procure her cargo, and the laborers are exposed to rain, etc., it becomes necessary for them to carry extra clothing. This clothing, also fumigated, is placed in a bag and sealed by me, to be delivered on board the vessel for distribution. I personally attend to all the fumigation, see that the laborers' clothing is changed, and accompany the barge to the vessel.

Boarding of vessels.—All vessels are boarded by me on their arrival here, prior to their departure to the lagoon to load fruit. It requires from twenty-four to thirty hours in the lagoon, after which they return to this point and are again boarded by me before sailing. The consular bill of health is then signed; a certificate, form No. 149, is issued conjointly with the bill of health.

During the time that the vessels are in the lagoon they are entirely from under my observation.

Suggestions for the improvement of the Service.—I would respectfully suggest that this station be furnished with a galvanized metallic rowboat about 14 feet long, to be used in boarding vessels. Although the fruit companies are very accommodating, the work of the station can be facilitated and much delay avoided.

As there are many vessels engaged in the fruit trade directly with southern ports of the United States, the work of the Marine-Hospital Service can be much better carried out if an appropriation of $75 per month be allowed this station for the employment of a man to aid in watching the vessels while in port, in order to prevent communication with the shore, to assist in seeing that the clothing of the laborers is changed, and that nothing is taken on board vessels unless previously fumigated.

The employment of this extra help was suggested in a report by Wm. H. Carson, acting assistant surgeon, at this port under date of November 20, 1900.

Respectfully,

PAUL OSTERHOUT,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Bocas del Toro, Republic of Colombia, September 17, 1901.

SIR: I have the honor to acknowledge receipt of Bureau letter, dated September 6, 1901, requesting prompt attention in forwarding the supplemental report of the transactions at this station from July 1, to September 15, 1901, inclusive.

Complying with this request I herewith submit the following report:

Number of vessels inspected	29
Number of persons inspected:	
Ships' crews	589
Passengers	1
Number of pieces of baggage disinfected	2

Infectious and contagious diseases.—There have been 10 known cases of yellow fever at this place, as follows: 2 deaths and 8 recoveries. These cases occurred in the period embraced between June 23 and August 21, 1901.

Respectfully,

PAUL OSTERHOUT,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

PORT LIMON

[illegible]

[illegible]

[illegible]

Limon is far from being a healthful place, for while the central or business portion has paved streets and sidewalks, kept in a good sanitary condition, the outskirts are swampy, badly drained, and in a very unsanitary condition.

A system of underground sewers has been constructed, without however sufficient fall to empty themselves, and no provision has been made for flushing. Again, only a small portion of the buildings are connected with the system; the others continue to use surface closets, which are rarely cleaned.

For the three months 56 deaths have occurred, which, with the estimated population of 4,000, gives an annual death rate per thousand of 56. Malarial fever in its various forms, intestinal troubles, and tuberculosis, in the order named, are the causes of most of the deaths.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Port Limon, Costa Rica, September 16, 1901.

SIR: Pursuant to directions in Bureau letter of July 18, 1901, and as supplementary to my report of July 29, 1901, I have to make the following report of the transactions at this station from July 1 to September 15, 1901, inclusive:

To 60 steamships have bills of health been given, after inspection of them and their crews.

On account of the continued presence of yellow fever at this port there has been no passenger traffic with the Southern ports of the United States, hence no baggage, thus limiting disinfection to the clothes worn by the laborers on the fruit vessels while in this port. This has been done with great care, and as these laborers are the only persons from Limon allowed to go aboard the ships, and none from the ships to come ashore, there is very little risk of infection being conveyed to the crew or vessel. Another point of safety worthy of notice is that all these laborers, without exception, are Jamaican negroes. I insisted upon this of the managers of the fruit companies at the beginning of the quarantine season, as I believe those negroes are practically immune to yellow fever.

Limon, with an estimated population of 4,000, had from July 1 to September 15, 1901, 76 deaths from all causes, principally as follows:

Yellow fever (41 cases)	16
Malarial fever (including haemoglobinuria)	18
Intestinal disorders in children	8
Pneumonia and bronchitis	4
Dysentery (probably malarial)	4
Tuberculosis	3
Typhoid fever	3
Other causes	20
Total	76

These figures would give the annual death rate per thousand of 90. Making all allowance for the sick who are brought here to die, for the lack of personal hygiene and cleanliness among many of the inhabitants, the fact remains that Limon is not a healthful place.

There has been no smallpox or other infectious diseases save as above mentioned.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

LIVINGSTON.

REPORT OF TRANSACTIONS AT THE PORT OF LIVINGSTON, [illegible] YEAR ENDED JUNE 30, [illegible]; ALSO SUPPLEMENTARY REPORT FROM [illegible] TO SEPTEMBER 15, [illegible], INCLUSIVE.

By Acting Asst. Surg. W. K. [illegible]

LIVINGSTON, GUATEMALA, [illegible]

[illegible] the honor to submit herewith report of transactions at [illegible] period from April [illegible] to June 30, [illegible], inclusive.

[illegible] W. K. [illegible]

[illegible] U. S. Marine-Hospital Service.

[illegible] Marine-Hospital Service.

[illegible]

BLUEFIELDS.

REPORT OF TRANSACTIONS AT THE PORT OF BLUEFIELDS, NICARAGUA, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. WM. H. CARSON.

MARINE-HOSPITAL SERVICE,
BLUEFIELDS, NICARAGUA, *August 1, 1901.*

SIR: I have the honor to transmit herewith, in compliance with instructions in Bureau letter dated July 19, 1901, and received here July 30, 1901, my report of the transactions at this station from the time operations were begun in the spring to and including June 30, 1901.

Work was begun at this station April 3, 1901.

The equipment at my disposal consists of one autoclave (formaldehyde generator) and lamp, also one carboy of formaldehyde mixture.

There are no employees at this station; all the assistance required in handling baggage, and laborers' clothing for disinfection, being furnished by the Bluefields Steamship Company, Limited.

Disinfection of passengers' baggage, as well as the clothing worn by the laboring fruit crew taken from this port to the "fruiters," is done in a closed room, conveniently located near to the water's edge, and subjected to more than six hours' exposure to formaldehyde gas. Bedding and household effects are prohibited.

Vessels are boarded off "Bluefields Bluff," 5 miles distant and opposite the town of Bluefields—the depth of water in the lagoon not permitting nearer approach of seagoing vessels to the town.

The fruit company furnish a small steamer which transfers passengers and disinfected baggage from the town (Bluefields) to the custom-house, at "Bluefields Bluff," where passengers' baggage is inspected by the Nicaraguan port officials and then transferred to the steamers anchored out in the bay.

All baggage is transferred from the disinfecting room to the small steamer previously mentioned, a very short distance, and there is but little if any danger of reinfection of baggage en route to the ship.

The following statistics are herewith furnished:

Number of vessels inspected	29
Number of crew inspected	343
Number of passengers inspected	85
Total number of persons inspected	428
Number of pieces of baggage inspected	129
Number of pieces of baggage disinfected	129

I inclose herewith copies of the blank forms now in use by me.

Respectfully,

WM. H. CARSON,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Bluefields, Nicaragua, September 16, 1901.

SIR: I have the honor to transmit herewith, in compliance with Bureau letter dated July 19, 1901, my supplemental report of the transactions at this station covering the period from July 1, 1901, to and including September 15, 1901.

The following statistics are herewith furnished:

Vessels inspected	17
Crew inspected	278
Passengers inspected	60
Total	338
Pieces of baggage inspected	92
Pieces of baggage disinfected	92

[illegible]

PUERTO CORTEZ

[illegible]

15, 1901, inclusive, I have the honor to hereby make the last-named report, having already made my report of transactions from April 1 to June 30, inclusive.

I have done the following since June 30 up to present time (September 15):

Steamships inspected	37
Passengers inspected	145
Pieces of baggage disinfected	231
Pieces of baggage inspected	12

Other conditions remain as before.

Respectfully,

SAMUEL HARRIS BACKUS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

HAWAII.

DETAIL OF CHIEF QUARANTINE OFFICER FOR THE TERRITORY OF HAWAII.

On August 31, 1900, the medical officer in command, Marine-Hospital Service, Honolulu, Hawaii, was detailed by the honorable the Secretary of the Treasury chief quarantine officer for the Territory of Hawaii.

Quarantine is now maintained at the ports of Honolulu, Kahului, Hilo, and Kihei. Extensive contracts have been let for repairing the buildings now on the quarantine island in Honolulu Harbor and for erecting new structures to assist in handling the large number of vessels and passengers arriving in Honolulu from suspected ports.

INSTALLATION OF DISINFECTING MACHINERY ON THE CHANNEL WHARF, HONOLULU.

In lieu of the floating disinfecting plant at the port of Honolulu it was considered advisable to establish a stationary plant on the channel wharf in the harbor, a portion of the said wharf having been placed at the disposal of the Marine-Hospital Service for such purpose by the superintendent of public works, under date of October 16, 1900.

A sulphur furnace, boiler, engine, fan, and pipes were forwarded to Honolulu and installed upon the wharf, partitions being erected in the wharf shed for the reception of the machinery. A steam chamber will shortly be forwarded for installation at the same place.

HONOLULU AND SUBPORTS.

REPORT OF TRANSACTIONS AT THE PORT OF HONOLULU, HAWAII, AND AT THE SUBPORTS OF THE HAWAIIAN ISLANDS DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By P. A. Surg. L. E. COFER.

MARINE-HOSPITAL SERVICE,
Honolulu, Hawaii, August 9, 1901.

SIR: In compliance with Bureau letter of July 18, 1901, I have the honor to make the following report of the transactions at this station from September 15, 1900, to and including June 30, 1901, as follows:

PERSONNEL FOR THE TERRITORY OF HAWAII.

P. A. Surg. L. E. Cofer, chief quarantine officer, Honolulu, Oahu.

P. A. Surg. L. E. Cofer (in command), supervisor of work in all departments, including special duty when necessary.

In the case of belated mail steamers this inspection is made up to midnight, provided, always, that transportation be furnished to the boarding officer by the steamship company and sufficient light is afforded for a careful inspection of all passengers and crew after they are regularly mustered.

TRANSACTIONS OF INCOMING QUARANTINE DIVISION.

Summary of vessels boarded between September 15, 1900, and June 30, 1901.

Steamers boarded from domestic ports	128
Steamers boarded from foreign ports	76
Total	204
Crew on board	25,750
Passengers on board	45,580
Stowaways on board	144
Total	71,474
Sailing vessels boarded from domestic ports	183
Sailing vessels boarded from foreign ports	98
Total	281
Crew on board	3,989
Passengers on board	394
Stowaways on board	2
Total	4,385
Total vessels boarded	485
Total crew examined	29,739
Total passengers examined	45,974
Total stowaways examined	146
Total persons examined	75,859

DIVISION OF FREIGHT INSPECTION.

Assistant Surgeon Wilson has charge of this inspection work.

FREIGHT INSPECTION.

This is confined to oriental freight, which, after its preliminary disinfection in situ by sulphur dioxide, is subjected to a gross examination by comparing the visé lists from the medical officers of this service stationed in the Orient with the invoices. Samples of all unvisèd articles are opened on the wharf and suspected freight barred from landing or disinfected by immersion in 4 per cent formalin solution, provided the articles show soil contamination, especially if the latter be in a moist condition. All unvisèd moist articles in crocks and cans are rejected.

Through the courtesy of the collector of customs all consignees are required to report to Assistant Surgeon Wilson with their freight permits, and no freight is liberated until his indorsement is made thereon. His indorsement can cover the freight on the wharf as a whole or be made subject to a personal inspection of the 10 per cent of each entry examined in the appraiser's office. Any freight to be disinfected is hauled to the channel wharf by the bonded drays and formally released to the collector of customs after disinfection.

Total number of packages of suspected oriental cargo for Honolulu	65,911
Total number of packages, contents examined	597
Total number of packages disinfected	61

[illegible]

[illegible]

[illegible]

Limon is far from being a healthful place, for while the central or business portion has paved streets and sidewalks, kept in a good sanitary condition, the outskirts are swampy, badly drained, and in a very unsanitary condition.

A system of underground sewers has been constructed, without however sufficient fall to empty themselves, and no provision has been made for flushing. Again, only a small portion of the buildings are connected with the system; the others continue to use surface closets, which are rarely cleaned.

For the three months 56 deaths have occurred, which, with the estimated population of 4,000, gives an annual death rate per thousand of 56. Malarial fever in its various forms, intestinal troubles, and tuberculosis, in the order named, are the causes of most of the deaths.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Port Limon, Costa Rica, September 16, 1901.

SIR: Pursuant to directions in Bureau letter of July 18, 1901, and as supplementary to my report of July 29, 1901, I have to make the following report of the transactions at this station from July 1 to September 15, 1901, inclusive:

To 60 steamships have bills of health been given, after inspection of them and their crews.

On account of the continued presence of yellow fever at this port there has been no passenger traffic with the Southern ports of the United States, hence no baggage, thus limiting disinfection to the clothes worn by the laborers on the fruit vessels while in this port This has been done with great care, and as these laborers are the only persons from Limon allowed to go aboard the ships, and none from the ships to come ashore, there is very little risk of infection being conveyed to the crew or vessel. Another point of safety worthy of notice is that all these laborers, without exception, are Jamaican negroes. I insisted upon this of the managers of the fruit companies at the beginning of the quarantine season, as I believe those negroes are practically immune to yellow fever.

Limon, with an estimated population of 4,000, had from July 1 to September 15, 1901, 76 deaths from all causes, principally as follows:

Yellow fever (41 cases)	16
Malarial fever (including hæmoglobinuria)	18
Intestinal disorders in children	8
Pneumonia and bronchitis	4
Dysentery (probably malarial)	4
Tuberculosis	3
Typhoid fever	3
Other causes	20
Total	76

These figures would give the annual death rate per thousand of 90. Making all allowance for the sick who are brought here to die, for the lack of personal hygiene and cleanliness among many of the inhabitants, the fact remains that Limon is not a healthful place.

There has been no smallpox or other infectious diseases save as above mentioned.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

he SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Limon is far from being a healthful place, for while the central or business portion has paved streets and sidewalks, kept in a good sanitary condition, the outskirts are swampy, badly drained, and in a very unsanitary condition.

A system of underground sewers has been constructed, without however sufficient fall to empty themselves, and no provision has been made for flushing. Again, only a small portion of the buildings are connected with the system; the others continue to use surface closets, which are rarely cleaned.

For the three months 56 deaths have occurred, which, with the estimated population of 4,000, gives an annual death rate per thousand of 56. Malarial fever in its various forms, intestinal troubles, and tuberculosis, in the order named, are the causes of most of the deaths.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Port Limon, Costa Rica, September 16, 1901.

SIR: Pursuant to directions in Bureau letter of July 18, 1901, and as supplementary to my report of July 29, 1901, I have to make the following report of the transactions at this station from July 1 to September 15, 1901, inclusive:

To 60 steamships have bills of health been given, after inspection of them and their crews.

On account of the continued presence of yellow fever at this port there has been no passenger traffic with the Southern ports of the United States, hence no baggage, thus limiting disinfection to the clothes worn by the laborers on the fruit vessels while in this port This has been done with great care, and as these laborers are the only persons from Limon allowed to go aboard the ships, and none from the ships to come ashore, there is very little risk of infection being conveyed to the crew or vessel. Another point of safety worthy of notice is that all these laborers, without exception, are Jamaican negroes. I insisted upon this of the managers of the fruit companies at the beginning of the quarantine season, as I believe those negroes are practically immune to yellow fever.

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Yellow fever (41 cases)	16
Malarial fever (including hæmoglobinuria)	18
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Other causes	20
Total	76

These figures would give the annual death rate per thousand of 90. Making all allowance for the sick who are brought here to die, for the lack of personal hygiene and cleanliness among many of the inhabitants, the fact remains that Limon is not a healthful place.

There has been no smallpox or other infectious diseases save as above mentioned.

Respectfully,

D. W. GOODMAN,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

LIVINGSTON.

Report of Transactions at the Port of Livingston, Guatemala, during the Fiscal Year ended June 30, 1901, also Supplemental Report from July 1 to September 15, 1901, inclusive.

By Acting Asst. Surg. W. K. Fort.

Livingston, Guatemala, [illegible]

Sir: I have the honor to submit herewith report of transactions at this station during the period from April 1, 1901, to June 30, 1901, inclusive.

Respectfully,

W. K. Fort,
Acting Assistant Surgeon, U. S. Marine Hospital Service.

The Surgeon-General Marine-Hospital Service.

[illegible]

[illegible]					
[illegible]	[illegible]	[illegible]	Father	[illegible]	[illegible]
	[illegible]	[illegible]	Mother	[illegible]	[illegible]
	[illegible]	[illegible]	Daughter	[illegible]	[illegible]
	[illegible]	[illegible]	Mother	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Father	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	Mother	[illegible]	[illegible]
	[illegible]	[illegible]	Father	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Mother	[illegible]	[illegible]
	[illegible]	[illegible]	Daughter	[illegible]	[illegible]
	[illegible]	[illegible]	Father	[illegible]	[illegible]
	[illegible]	[illegible]	Daughter	[illegible]	[illegible]
	[illegible]	[illegible]	Mother	[illegible]	[illegible]
		Total			

[illegible]

Supplemental.

[illegible]

[illegible] W. K. F[illegible]

[illegible] U. S. Marine Hospital Service.

[illegible]

[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	Mother	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Mother	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Mother	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Father	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	Mother	[illegible]	[illegible]
	[illegible]	[illegible]	Daughter	[illegible]	[illegible]
		Total			

[illegible] number of pieces of baggage [illegible]

BLUEFIELDS.

REPORT OF TRANSACTIONS AT THE PORT OF BLUEFIELDS, NICARAGUA, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. WM. H. CARSON.

MARINE-HOSPITAL SERVICE,
BLUEFIELDS, NICARAGUA, *August 1, 1901.*

SIR: I have the honor to transmit herewith, in compliance with instructions in Bureau letter dated July 19, 1901, and received here July 30, 1901, my report of the transactions at this station from the time operations were begun in the spring to and including June 30, 1901.

Work was begun at this station April 3, 1901.

The equipment at my disposal consists of one autoclave (formaldehyde generator) and lamp, also one carboy of formaldehyde mixture.

There are no employees at this station; all the assistance required in handling baggage, and laborers' clothing for disinfection, being furnished by the Bluefields Steamship Company, Limited.

Disinfection of passengers' baggage, as well as the clothing worn by the laboring fruit crew taken from this port to the "fruiters," is done in a closed room, conveniently located near to the water's edge, and subjected to more than six hours' exposure to formaldehyde gas. Bedding and household effects are prohibited.

Vessels are boarded off "Bluefields Bluff," 5 miles distant and opposite the town of Bluefields—the depth of water in the lagoon not permitting nearer approach of seagoing vessels to the town.

The fruit company furnish a small steamer which transfers passengers and disinfected baggage from the town (Bluefields) to the custom-house, at "Bluefields Bluff," where passengers' baggage is inspected by the Nicaraguan port officials and then transferred to the steamers anchored out in the bay.

All baggage is transferred from the disinfecting room to the small steamer previously mentioned, a very short distance, and there is but little if any danger of reinfection of baggage en route to the ship.

The following statistics are herewith furnished:

Number of vessels inspected	29
Number of crew inspected	343
Number of passengers inspected	85
Total number of persons inspected	428
Number of pieces of baggage inspected	129
Number of pieces of baggage disinfected	129

I inclose herewith copies of the blank forms now in use by me.

Respectfully,

WM. H. CARSON,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Bluefields, Nicaragua, September 16, 1901.

SIR: I have the honor to transmit herewith, in compliance with Bureau letter dated July 19, 1901, my supplemental report of the transactions at this station covering the period from July 1, 1901, to and including September 15, 1901.

The following statistics are herewith furnished:

Vessels inspected	17
Crew inspected	278
Passengers inspected	60
Total	338
Pieces of baggage inspected	92
Pieces of baggage disinfected	92

[illegible] exceptions, all of the 17 vessels inspected were fruit carriers from Bluefields to New Orleans, and only such vessels as had medical officers aboard, commissioned by the Louisiana State board of health, carried passengers from this port.

During this period, July 1, 1901, to and including September 15, 1901, there have been 23 deaths at this port or its immediate vicinity, mainly due to malarial fever and its varied complications. I may state here that the port of Bluefields has at the present time an officially estimated population of 4,000, and that up to this date there has not been entertained the slightest suspicion as to the presence of any contagious or infectious disease, excepting the one case of smallpox I reported June 26, 1901.

[illegible] here, July 17, 1901, the bed sacks and seal press, all passengers' baggage, after disinfection and the inspection by the customs officials at Bluefields, [illegible] then and there sealed by me before transfer to the ship about to clear for the United States.

Respectfully,

[illegible]

[illegible] Marine-Hospital Service.

Puerto Cortez

Report of Transactions at the Port of Puerto Cortez, Honduras, for the Year ending June 30, 1901, and September 15, 1901, inclusive.

By Acting Asst. Surg. Samuel Harris Rose.

Marine-Hospital Service,
Puerto Cortez, [illegible]

Sir: I have the honor to answer [illegible] the Bureau in [illegible] that operations were begun [illegible] report.

[illegible] was begun at Puerto Cortez [illegible]

My equipment consists of disinfecting [illegible] sulphur mixture [illegible] quarters. We have [illegible] at this port [illegible]

All passengers, all local inspection [illegible] are detained [illegible] required time. Passengers [illegible] have the certificate of local inspection [illegible]

Baggage is disinfected [illegible]

[illegible] are blanketed [illegible]

Vessels inspected	[illegible]
Pieces of baggage inspected and passed	[illegible]
Pieces of baggage disinfected and passed	[illegible]
Crews inspected	[illegible]

In addition to this the quarts [illegible] are disinfected with [illegible] and being washed each time [illegible]

Respectfully,

[illegible]

[illegible] Marine-Hospital Service.

[illegible]

[illegible]

Sir: According to instructions [illegible] to forward, as soon as possible [illegible] to and including June 30, 1901 [illegible] September [illegible]

15, 1901, inclusive, I have the honor to hereby make the last-named report, having already made my report of transactions from April 1 to June 30, inclusive.

I have done the following since June 30 up to present time (September 15):

Steamships inspected	37
Passengers inspected	145
Pieces of baggage disinfected	231
Pieces of baggage inspected	12

Other conditions remain as before.

Respectfully,

SAMUEL HARRIS BACKUS,
Acting Assistant Surgeon, U. S. Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

HAWAII.

DETAIL OF CHIEF QUARANTINE OFFICER FOR THE TERRITORY OF HAWAII.

On August 31, 1900, the medical officer in command, Marine-Hospital Service, Honolulu, Hawaii, was detailed by the honorable the Secretary of the Treasury chief quarantine officer for the Territory of Hawaii.

Quarantine is now maintained at the ports of Honolulu, Kahului, Hilo, and Kihei. Extensive contracts have been let for repairing the buildings now on the quarantine island in Honolulu Harbor and for erecting new structures to assist in handling the large number of vessels and passengers arriving in Honolulu from suspected ports.

INSTALLATION OF DISINFECTING MACHINERY ON THE CHANNEL WHARF, HONOLULU.

In lieu of the floating disinfecting plant at the port of Honolulu it was considered advisable to establish a stationary plant on the channel wharf in the harbor, a portion of the said wharf having been placed at the disposal of the Marine-Hospital Service for such purpose by the superintendent of public works, under date of October 16, 1900.

A sulphur furnace, boiler, engine, fan, and pipes were forwarded to Honolulu and installed upon the wharf, partitions being erected in the wharf shed for the reception of the machinery. A steam chamber will shortly be forwarded for installation at the same place.

HONOLULU AND SUBPORTS.

REPORT OF TRANSACTIONS AT THE PORT OF HONOLULU, HAWAII, AND AT THE SUBPORTS OF THE HAWAIIAN ISLANDS DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By P. A. Surg. L. E. COFER.

MARINE-HOSPITAL SERVICE,
Honolulu, Hawaii, August 9, 1901.

SIR: In compliance with Bureau letter of July 18, 1901, I have the honor to make the following report of the transactions at this station from September 15, 1900, to and including June 30, 1901, as follows:

PERSONNEL FOR THE TERRITORY OF HAWAII.

P. A. Surg. L. E. Cofer, chief quarantine officer, Honolulu, Oahu.

P. A Surg. L. E. Cofer (in command), supervisor of work in all departments, including special duty when necessary.

[illegible] Surg. R. L. Wilson, in charge division of freight inspection.

[illegible] Surg. L. P. H. Bahrenburg, in charge division of incoming quarantine and [illegible]

[illegible] Frank Dalton, pilot, responsible for care and navigation of [illegible]; Eugene B. Lee, engineer, responsible for care of machinery of launch; [illegible] deck hand, reporting to pilot; Charles Miller, fireman, reporting to engineer.

[illegible] Surg. R. L. Wilson, in charge of hospital and [illegible] patient department of marine-hospital division.

Hospital Steward Frank [illegible] Colson, in charge division of correspondence and records, United States quarantine and marine hospital, [illegible]; Raphael Kahn, [illegible] messenger.

Surg. J. [illegible] M. Keogh, in charge division [illegible] quarantine [illegible].

[illegible] James K. Wright, engineer and [illegible] [illegible] and assigned duty; [illegible] Kerrigan, [illegible] and assigned duty; [illegible] Sanders, [illegible] and assigned duty; [illegible] Bartlett, fireman at quarantine station and [illegible] wharf and assigned duty; Charles Kerrigan, assistant superintendent, also house cleaner at [illegible]; [illegible] Charles Campbell, [illegible] and assigned duty.

Hill, Henry, Acting Asst. Surg. [illegible]

Kahn, Wm., Acting Asst. Surg. [illegible]

Kahn, Wm., Acting Asst. Surg. R. H. [illegible]

Lehman, Wm., Acting Asst. Surg.

Kahn, Alexander, Acting Asst. Surg.

[illegible]

[illegible]

[illegible]

[illegible]

In the case of belated mail steamers this inspection is made up to midnight, provided, always, that transportation be furnished to the boarding officer by the steamship company and sufficient light is afforded for a careful inspection of all passengers and crew after they are regularly mustered.

TRANSACTIONS OF INCOMING QUARANTINE DIVISION.

Summary of vessels boarded between September 15, 1900, and June 30, 1901.

Steamers boarded from domestic ports	128
Steamers boarded from foreign ports	76
Total	204
Crew on board	25,750
Passengers on board	45,580
Stowaways on board	144
Total	71,474
Sailing vessels boarded from domestic ports	183
Sailing vessels boarded from foreign ports	98
Total	281
Crew on board	3,989
Passengers on board	394
Stowaways on board	2
Total	4,385
Total vessels boarded	485
Total crew examined	29,739
Total passengers examined	45,974
Total stowaways examined	146
Total persons examined	75,859

DIVISION OF FREIGHT INSPECTION.

Assistant Surgeon Wilson has charge of this inspection work.

FREIGHT INSPECTION.

This is confined to oriental freight, which, after its preliminary disinfection in situ by sulphur dioxide, is subjected to a gross examination by comparing the visé lists from the medical officers of this service stationed in the Orient with the invoices. Samples of all unviséed articles are opened on the wharf and suspected freight barred from landing or disinfected by immersion in 4 per cent formalin solution, provided the articles show soil contamination, especially if the latter be in a moist condition. All unviséed moist articles in crocks and cans are rejected.

Through the courtesy of the collector of customs all consignees are required to report to Assistant Surgeon Wilson with their freight permits, and no freight is liberated until his indorsement is made thereon. His indorsement can cover the freight on the wharf as a whole or be made subject to a personal inspection of the 10 per cent of each entry examined in the appraiser's office. Any freight to be disinfected is hauled to the channel wharf by the bonded drays and formally released to the collector of customs after disinfection.

Total number of packages of suspected oriental cargo for Honolulu	65,911
Total number of packages, contents examined	597
Total number of packages disinfected	61

QUARANTINE STATION

Capt. John D. McVeigh is in immediate charge of the attendants and of the details of the work done at the quarantine station. Our capacity at the station on July 1, 1901, is as follows:

First-class passengers	24
Patients in contagious and noncontagious hospitals	10
Patients in Asiatic hospital	5
Second-class passengers	75
Aseptic	1,000

Six houses are now under construction and the increased capacity at the quarantine station, including the facilities existing for detaining persons under observation and for treating the sick, will be fully described in the supplemental report of transactions from July 1, 1901, to and including September 15, 1901, which follows.

On account of the large amount and the variety of improvements now being made at the quarantine station, both under authorized contract and by the station force, a description of the disinfection plant and the equipment there will be included in the supplemental report as by that time a more or less complete working organization will have been effected.

The transactions at the quarantine station from September 15, 1901, to and including June 30, 1901, are as follows:

In hospital:	
Smallpox	6
Deaths	1
Measles under observation	[illegible]
Chickenpox under observation for [illegible] days	[illegible]
Leprosy	1
In detention:	
First-class	[illegible]
Aseptic	[illegible]
Aseptic vaccinated	[illegible]
Aseptic bathed	[illegible]
Pratique granted	[illegible]
Pieces of baggage disinfected	[illegible]

CHANNEL [illegible]

The use of this wharf has been [illegible] at a depth of 21 feet [illegible].

The supplementary furnace has been [illegible] and the [illegible] repairs will have just been completed.

The dredging now going on [illegible] for available for the receipt [illegible] on this wharf worthy of [illegible] [illegible] there will be given [illegible] dredge steamers intended for [illegible].

UNITED STATES [illegible]

The accounts, records, etc., are [illegible] to request on such performed in [illegible] of business transactions [illegible] follow in the order [illegible].

[illegible]

It is proposed to give at [illegible] surveying a description of the [illegible] stations at these places [illegible] have been inspected and [illegible].

Ilo

Accounts inspected and passed [illegible]

Salem, Mass.

Accounts inspected and passed [illegible]

Boston, Mass.

Accounts inspected and passed [illegible]

Respectfully,

[illegible]

[illegible] Surgeon.

The Surgeon-General [illegible] Marine-Hospital Service.

[Inclosure.]

SS. ——— ———.

From ——— ———. Date of arrival, ——— — —.

Summary of persons on board.

CABIN.

	Men.	Women.	Children.	Total.	For Honolulu.
Europeans					
Chinese					
Japanese					
Total					

EUROPEAN STEERAGE.

Europeans					
Chinese					
Japanese					
Total					

ASIATIC STEERAGE.

Europeans					
Chinese					
Japanese					
Total					

CREW.

	Europeans.	Chinese.	Japanese.	Total.
Deck department				
Purser's department				
Engineer's department				
Stowaways				
Total				

NOTE.—Officers will be included in their several departments.

———, *Purser.*

Supplemental report.

MARINE-HOSPITAL SERVICE,
Honolulu, Hawaii, September 18, 1901.

SIR: In compliance with Bureau letter of July 18, 1901, I have the honor to make my supplemental report of the transactions at this station from July 1 to and including September 15, 1901, as follows:

TRANSACTIONS OF INCOMING QUARANTINE DIVISION.

Summary of vessels boarded between July 1 and September 15, 1901.

Steamers from domestic ports	27
Steamers from foreign ports	23
Total	50
Crew on board	7,047
Passengers on board	8,334
Stowaways on board	12
Total	15,393

[illegible] from domestic ports	44
[illegible] from foreign ports	24
Total	68
[illegible] on board	[illegible]
[illegible] passengers on board	[illegible]
[illegible] seamen on board	2
Total	[illegible]
[illegible]	[illegible]
[illegible] inspected	[illegible]
[illegible] passengers inspected	[illegible]
[illegible] seamen inspected	[illegible]
Total	[illegible]
[illegible]	
Total [illegible] packages [illegible]	[illegible]
Total [illegible] packages [illegible]	[illegible]
Total [illegible] packages [illegible]	[illegible]
[illegible]	
[illegible] passengers	[illegible]
[illegible] hospitals	[illegible]
[illegible] passengers	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible] baggage [illegible]	[illegible]
[illegible]	
[illegible]	[illegible]
[illegible] inspected	[illegible]
[illegible] inspected	[illegible]
[illegible] passengers inspected	[illegible]
[illegible] passengers [illegible]	
[illegible] baggage [illegible]	[illegible]

[illegible]

[illegible] at the port [illegible]

[illegible] baggage [illegible]

EQUIPMENT AT THE QUARANTINE STATION.

Executive building.—This is now under construction, the strike at San Francisco having delayed its completion. This is located at the island end of the walkway to the boat landing, and from it one is able to command a view of the whole of the quarantine station and also of Honolulu Harbor. The lower floor has an executive office, surgeon's office, bacteriological laboratory room, and dispensary. The upper floor has quarters of two rooms each for the superintendent and one unmarried medical officer. This house is rat and vermin proof, having all of the studding on the outside and the two layers of wall closely laid in apposition.

Disinfecting warehouse.—This is situated directly back of the executive building. Its dimensions are 40 by 60 feet. It contains one large steam chamber, one large boiler, and an electric dynamo. The boiler and steam chamber are in good order and condition, and are used after the arrival of every oriental steamer. Directly back of this warehouse is another room, greatly in need of repair. This contains an ordinary sulphur furnace, engine, and fan.

The sulphur pipe leads into another room directly back of this one, and in equally bad repair, where the baggage is subjected to long exposure to sulphur gas, the articles being either hung on lines or left in situ in the case of ordinary freight carried as baggage.

Asiatic corrals.—To the right of the disinfecting warehouse these corrals are located. They consist of rough sheds inclosed by a high paling fence. Their combined capacity is 500. They are in a very dilapidated condition.

The new cabin passengers' building is nearing completion, and with the old building will enable 75 passengers to be comfortably housed. The furniture and general equipment for these houses have not arrived at this writing.

The new contagious hospital is nearing completion and will accommodate 16 patients. It is rat and vermin proof and is constructed and arranged so as to admit of easy and complete disinfection. A small cook house is being erected for this hospital and also for two other buildings which are near by and which will be fitted up as additional hospitals in the event two different quarantinable diseases are brought to the station at the same time. Our combined hospital capacity will then be 35 patients. There are two buildings near the cabin passengers' quarters, which when repaired will be fitted up as noncontagious hospitals for men and women, respectively.

The new barracks buildings, four in number, are also nearing completion; they will have a combined capacity of 200 persons.

CHANNEL WHARF.

The dredging having been completed on September 1 of this year, all vessels from infected ports have been placed at this wharf since that time. This wharf has been provided with two drawbridges, one of which is always kept elevated, so that all ingress and egress is confined to an opening only 12 feet wide, and with a watchman at this opening, a precaution always taken when suspected vessels are at the wharf, the escape of rats to the mainland can be easily prevented.

Two steam chambers are expected to arrive in the near future, when this wharf will be well equipped for almost any emergency. Its close proximity to other shipping makes it in a great many ways undesirable for quarantine purposes, and its use should be confined to suspected vessels from infected ports, and for this purpose it is probably one of the most complete and practical plants in the world.

It is hoped that a wharf suitable for the treatment of infected vessels will soon be provided for this station.

Transactions.

Vessels from Orient	3
Cargoes disinfected	3

SUBSTATIONS IN THE HAWAIIAN ISLANDS.

The transactions at the substations between June 30, 1901, and September 15, 1901, are as follows:

Hilo, Island of Hawaii:	
Vessels inspected	9
Passengers inspected	9
Crew inspected	108
Kahului, Island of Maui:	
Vessels inspected	4
Passengers inspected	2
Crew inspected	55

[illegible] Island of Maui. No transactions.

[illegible] Island of Maui.

Vessels inspected	1
Crews inspected	10

[illegible] Island of Kauai. No transactions.

The work at the substations is performed by acting assistant surgeons and consists mainly of the inspection of vessels and their passengers and crews. Any vessel requiring treatment would be remanded to Honolulu for this purpose. With the exception of Hilo none of the above-named ports have any wharves, and on account of the gradual slope of the beach no vessel can approach nearer than from one hundred to one-half mile from the shore. From a quarantine standpoint these ports are [illegible] safe from infection, and it will probably never be necessary to further [illegible] them. It will be ultimately necessary, however, to engage and maintain a [illegible] quarantine station at the port of Hilo, as this is destined to grow in importance [illegible] the island of Hawaii, the largest island in the group [illegible].

Respectfully,

[illegible]
Passed Assistant Surgeon, Marine-Hospital Service,
Acting Assistant Surgeon-General in charge of Marine-Hospital Service.

The Surgeon-General U. S. Marine-Hospital Service.

[illegible]

[illegible]

[illegible]

[illegible] passengers inspected and passed
[illegible] passengers inspected and passed
[illegible]
[illegible] passengers [illegible]

[illegible]
[illegible]
[illegible] wanted

[illegible]

[illegible]

HILO.

[illegible]

The increasing traffic at the port of Hilo, Hawaii, [illegible] necessary to consider the establishment of a [illegible] station at that port in the near future. With the [illegible] board, consisting of P. A. Surg. L. L. Cooper, Marine-Hospital Service, Honolulu, and the deputy collector of customs, Hilo, Hawaii, was appointed April 15, 1901, by the honorable the Secretary of the Treasury, for the purpose of inspecting the available sites at or in the vicinity of Hilo and reporting upon same. The board was authorized to call into consultation pilots, agents of commercial lines, or other persons who might be interested, for the purpose of [illegible]

necessary information regarding the best site for such a quarantine station. The following is the report of the board:

MARINE-HOSPITAL SERVICE,
Hilo, Hawaii, May 16, 1901.

SIR: In obedience to your letter of April 15, 1901, in which we were designated as chairman and member, respectively, of a board appointed by you to investigate and report upon a site for a quarantine station for the port of Hilo, Hawaii, we have the honor to report as follows:

GENERAL CONDITIONS.

In our opinion, from evidence submitted, there is not an available quarantine site in this port, properly removed from the shipping, from which the usual disinfecting wharf could be built and operated with safety either to said wharf or to vessels moored there. Therefore the use of any site selected must be confined to the detention of sick and suspected persons, the work of disinfecting vessels being only possible of performance by means of a floating disinfecting scow, which may be kept permanently safe in the anchorage designated on the large working map No. 1.

RECOMMENDATIONS.

First. That the certain plot of land, drawn in and otherwise described on the inclosure designated "Proposition No. 3, accepted," situated on the southeast shore of the Hilo Bay, at a place called Puhi, distant by water from Hilo 2.65 miles and by road 3.22 miles, of 50 acres area, with shore line of 1,000 feet, with permanent landing and protection for steam launch and small boats and for temporary anchorage for large vessels, be transferred to the Marine-Hospital Service as a site for a quarantine station for the port of Hilo, Hawaii. The board has given this question a great deal of careful study, and it is believed that this locality, while by no means an ideal one for the purpose, is the only site in Hilo Bay or vicinity worthy of consideration. This land, although vested in the United States Government by virtue of the "Act to provide a government for the Territory of Hawaii," is under lease for a further period of seventeen years to the Waiakea Mill Company, of Hilo. A recommendation of release under terms has been promised us by the manager, Mr. C. C. Kenedy, of the Waiakea Mill Company, located here. We have been advised that a proposal of sublease will be furnished the chairman upon his return to Honolulu. Said proposal of sublease, or a possible written refusal of same, should the directors take such action, will be attached to and become a part of the map entitled "Proposition No. 3, accepted."

It is our opinion that a yearly rental of $5 per acre, the amount named in the recommendation of the manager of the Waiakea Mill Company to his directors, is not excessive and is worthy of acceptance. We believe that the proposal to sell the release outright is also worthy of consideration.

ABSTRACT OF BOARD WORK.

First. Consultations with pilots, masters, and shipping agents.
Second. Consultations with Territory and city surveyors.
Third. Personal inspection of coast line and contiguous land for a distance of 7 to 8 miles on either side of Hilo.
Fourth. Personal inspection of coast by means of small boats; this in company with the pilot and harbor master.
Fifth. The incorporation of our information into the large working map.

LOCALITIES SELECTED FOR CLOSE STUDY.

First. Onomea Gulch, or Kahalii. (Referred to erroneously by Surg. D. A. Carmichael as Hali, or Kukuilauaniu, and marked on the maps as quarantine proposition No. 1.)
Second. Cocoanut Island, or proposition No. 2.
Third. Puhi, or proposition No. 3, accepted.

NOTE.—We were unable to locate any place with the name of "Hali," but it is certain that Kahalii, which is Hali with the prefix "Ka," is the place intended. We have not been able, however, to associate the name of Kukuilauaniu with Kahalii, nor can we obtain any information covering this locality. (Vide Exhibit B.)

[illegible]

[illegible] Kahalui or proposition No. 1, rejected

[illegible]

First. Isolation 6 miles north of Hilo.

Second. Deep water near by, although declared by pilots and underwriters unsafe except for vessels under constant steam.

Third. An abundance of fresh water, although unavailable without considerable expense in development.

Fourth. Sewage problem simple and inexpensive.

[illegible]

First. Acreage limited to about [illegible] acres and [illegible] particularly [illegible] steep grades.

Second. Two-thirds of land immediately joining the proposed area and to right [illegible] owned by separate persons, who refuse sale.

Third. Inaccessibility, involving a long trip by water and [illegible]

Fourth. Reported unsafe for landing of small boats in rough weather [illegible] proposed location extending through [illegible]

Fifth. Unsafe for anchorage of vessels [illegible] constant steam.

Sixth. The long distance between [illegible] and the present anchorage [illegible] being large.

Seventh. Total [illegible] private [illegible]

[illegible]

[illegible]

First. A disinfecting wharf [illegible]

Second. The water and drainage [illegible]

Third. The land control [illegible]

[illegible]

First. Its area is [illegible]

Second. It is located in the [illegible]

Third. It is [illegible]

Fourth. It would be difficult to guard [illegible]

Fifth. It is [illegible] the [illegible]

Sixth. [illegible]

[illegible]

[illegible]

First. Its state [illegible]

Second. The land vested [illegible] Waiakea M[illegible]

Third. The property of the [illegible] Waiakea M[illegible]

[illegible]

Fourth. Its constant mail [illegible]

[illegible] Kahalui A

First. Its temperature [illegible]

Second. Its accessibility [illegible]

Seventh. The easy and inexpensive [illegible]

Eighth. Its ample area [illegible]

Ninth. Drinking water [illegible] water [illegible] water in storage tanks

In the case of belated mail steamers this inspection is made up to midnight, provided, always, that transportation be furnished to the boarding officer by the steamship company and sufficient light is afforded for a careful inspection of all passengers and crew after they are regularly mustered.

TRANSACTIONS OF INCOMING QUARANTINE DIVISION.

Summary of vessels boarded between September 15, 1900, and June 30, 1901.

Steamers boarded from domestic ports	128
Steamers boarded from foreign ports	76
Total	204
Crew on board	25,750
Passengers on board	45,580
Stowaways on board	144
Total	71,474
Sailing vessels boarded from domestic ports	183
Sailing vessels boarded from foreign ports	98
Total	281
Crew on board	3,989
Passengers on board	394
Stowaways on board	2
Total	4,385
Total vessels boarded	485
Total crew examined	29,739
Total passengers examined	45,974
Total stowaways examined	146
Total persons examined	75,859

DIVISION OF FREIGHT INSPECTION.

Assistant Surgeon Wilson has charge of this inspection work.

FREIGHT INSPECTION.

This is confined to oriental freight, which, after its preliminary disinfection in situ by sulphur dioxide, is subjected to a gross examination by comparing the visé lists from the medical officers of this service stationed in the Orient with the invoices. Samples of all unviséed articles are opened on the wharf and suspected freight barred from landing or disinfected by immersion in 4 per cent formalin solution, provided the articles show soil contamination, especially if the latter be in a moist condition. All unviséed moist articles in crocks and cans are rejected.

Through the courtesy of the collector of customs all consignees are required to report to Assistant Surgeon Wilson with their freight permits, and no freight is liberated until his indorsement is made thereon. His indorsement can cover the freight on the wharf as a whole or be made subject to a personal inspection of the 10 per cent of each entry examined in the appraiser's office. Any freight to be disinfected is hauled to the channel wharf by the bonded drays and formally released to the collector of customs after disinfection.

Total number of packages of suspected oriental cargo for Honolulu	65,911
Total number of packages, contents examined	597
Total number of packages disinfected	61

LIST OF QUARANTINE STATIONS.

Quarantine is now conducted at the ports of Manila, Cebu, and Iloilo, P. I., under commissioned officers of the Marine Hospital Service. As will be seen from the annual report of the chief quarantine officer, the quarantine station at Manila is now one of the most active stations in the Service. Extensive repairs and improvements have been made at the Mariveles Quarantine Station, near Manila, and a commissioned officer of the Service is there stationed. Vessels requiring disinfection are remanded from Manila to Mariveles for such treatment.

REPORT FROM MANILA AND SUBPORTS.

[illegible]

By P. A. [illegible]

[illegible]

Marine Hospital Service,
Manila, P. I., [illegible]

[illegible]

[Inclosure.]

SS. ——— ———.

From ——— ———. Date of arrival, ——— — —.

Summary of persons on board.

CABIN.

	Men.	Women.	Children.	Total.	For Honolulu.
Europeans					
Chinese					
Japanese					
Total					

EUROPEAN STEERAGE.

Europeans					
Chinese					
Japanese					
Total					

ASIATIC STEERAGE.

Europeans					
Chinese					
Japanese					
Total					

CREW.

	Europeans.	Chinese.	Japanese	Total.
Deck department				
Purser's department				
Engineer's department				
Stowaways				
Total				

NOTE.—Officers will be included in their several departments.

——— ———, *Purser.*

Supplemental report.

MARINE-HOSPITAL SERVICE,
Honolulu, Hawaii, September 18, 1901.

SIR: In compliance with Bureau letter of July 18, 1901, I have the honor to make my supplemental report of the transactions at this station from July 1 to and including September 15, 1901, as follows:

TRANSACTIONS OF INCOMING QUARANTINE DIVISION.

Summary of vessels boarded between July 1 and September 15, 1901.

Steamers from domestic ports	27
Steamers from foreign ports	23
Total	50
Crew on board	7,047
Passengers on board	8,334
Stowaways on board	12
Total	15,393

GENERAL ORDERS,
No. 168.

OFFICE OF U. S. MILITARY GOVERNOR
IN THE PHILIPPINE ISLANDS,
MANILA, P. I., December 15, 1900.

On and after January 1, 1901, the following regulations will govern in the issuing of bills of health in the Philippine Islands.

Any vessel leaving from any port in the Philippine Islands for ports in the United States or its dependencies shall obtain a bill of health from the quarantine officer, where such officer is on duty, and at ports where no quarantine officer is detailed from the collector of customs or other designated officer.

Vessels bound for foreign ports may, upon application, obtain bills of health under the same regulations as vessels bound for ports in the United States or its dependencies.

Vessels engaged in the coasting trade of the Philippine Islands do not require bills of health: provided, however, that when ports become infected with a quarantinable disease bills of health shall be issued to all vessels sailing from such ports under the same regulations as those governing at ports of entry for vessels sailing to United States ports.

All bills of health for ports in the United States or its dependencies will be issued on Form 1931 A, and for foreign ports on Form 1931 B, U. S. Marine-Hospital Service. Blank forms will be supplied by the chief quarantine officer for the Philippine Islands to all ports of entry, and at other ports upon requisition duly made by the inspector of customs.

By command of Major-General MacArthur:

[illegible]
Lieutenant-Colonel [illegible], Inspector, U. S. [illegible]

When plague and smallpox began to increase in Manila in the spring of [illegible] advisable to institute an "outgoing" quarantine in order to furnish as much protection as possible to the other island ports against the introduction of these diseases from the former. This went into effect on [illegible], promulgated by the following circular letter, and is still in force:

[illegible]

OFFICE CHIEF QUARANTINE OFFICER OF THE PHILIPPINE ISLANDS,
MARINE-HOSPITAL SERVICE, MANILA, P. I., [illegible]

To [illegible], Manila, P. I.:

[illegible] In view of the increase of plague in Manila, and [illegible] ports in the Philippines from the infection of the disease, [illegible] passenger vessels infected, and the liability to quarantine [illegible] Manila for other island ports will be required to send [illegible]

All vessels will be required to secure [illegible] before [illegible] vessel after an examination of the crew and passengers [illegible] will be allowed to embark after the inspection.

All passengers found on board on inspection will [illegible]

All passengers with their baggage [illegible] and shall be [illegible] sailing.

The officer must be notified three hours [illegible] to allow of proper time for inspection and [illegible] baggage [illegible] hours on schedule time.

You will notify all deck passengers that their baggage [illegible] vessel, and that no mattresses or pillows will be taken. [illegible] captain of the ship must take charge of the baggage [illegible] twenty-four hours or until the arrival of the passengers [illegible] twenty-four hours.

This regulation will go into effect [illegible] today.

Thanking you for your cooperation [illegible]

Respectfully,

[illegible]

All vessels, their crews and passengers [illegible] The baggage of all Chinese and [illegible] such as mattresses and pillows, is to be [illegible] and properly disinfected. This [illegible]

sick from leaving the city to infect the vessels and other ports, and several persons affected with contagious diseases have been apprehended. This quarantine has progressed without friction, with little delay to shipping or inconvenience to passengers.

On the same date vaccination of all crews and passengers of incoming boats was instituted, and outgoing mail for the United States and island ports was required to be disinfected. The labor for the latter was furnished by the post-office authorities and the apparatus and disinfectants by this office, the work being performed according to my directions.

The amount of outgoing quarantine work performed is submitted in Exhibit A.

On May 1, 1901, owing to the marked increase of plague in Hongkong and Amoy, the same prohibitive regulations against steerage passengers from those places as was enforced in the preceding year were placed in effect and still remain in force A conference with the different steamship agents was held and the necessity of not bringing any Chinese and native steerage passengers from those ports during the prevalence of plague was demonstrated, as it would render their ships liable to infection from the disease and subject their vessels to quarantine detention at this port. This regulation has proved very satisfactory both to the agents and to this office, and has been rigidly enforced, with the assistance of Asst. Surg. J. W. Kerr, U. S. Marine-Hospital Service, in Hongkong. In addition, the crews of these vessels are not allowed on shore in Hongkong, and they and their effects are disinfected each trip immediately prior to sailing. Disinfection of the through steerage passengers for Australian ports is also required. I think these regulations afford the best protection to the Philippine ports under the circumstances, and their effectiveness has been demonstrated by the fact that no infected ship arrived from the ports mentioned during the past or present year.

So few foreign vessels arrive at Zamboanga, Siassi, and Jolo, the other ports of entry, that it has not been deemed necessary to detail officers for duty at those places, but the inspection work is performed by the army surgeons stationed there.

In my opinion it is not necessary to install disinfecting plants at these ports, as infected vessels can be remanded to either Cebu or Iloilo.

An examination of Exhibit D, giving the expenditures for the year, will show that the running expenses of the Service have been small, and notwithstanding the large amount of construction and equipment only a little more than one-half of the available appropriation has been expended. However, this amount, $160,598.93, does not accurately represent the total sum, as several bills for supplies purchased in the United States have not yet been paid.

Exhibit A.

Statistics of quarantine transactions at the port of Manila, P. I., for the fiscal year ended June 30, 1901.

Month.	Vessels inspected.		Crew inspected.	Passengers inspected.	Crew vaccinated.	Passengers vaccinated.	Bills of health issued.
	From foreign ports	From domestic ports.					
1900.							
July	44	190	7,767	5,001	.....	.....	200
August	57	119	7,041	4,298	.....	.....	155
September	54	146	7,415	10,160	.....	.....	182
October	58	237	10,101	17,003	.....	.....	256
November	48	196	7,285	9,228	.....	.....	214
December	56	193	7,285	10,391	.....	.....	243
1901							
January	57	219	10,483	11,691	.....	.....	47
February	62	215	9,574	12,150	15	60	49
March	61	293	12,086	22,651	940	1,020	61
April	50	284	10,597	16,932	2,222	2,401	308
May	62	290	11,327	22,200	423	2,961	366
June	59	219	9,618	12,012	144	1,831	265
Total	668	2,631	110,579	153,745	3,744	8,263	2,346

Statistics of quarantine transactions at the port of Manila, P. I., for the fiscal year ended June 30, 1901. (Continued.)

Month	Vessels disinfected	Vessels quarantined for observation	Persons quarantined for observation	Pieces of baggage disinfected	Pieces of baggage inspected	Persons bathed and disinfected
1900						
July			11			
August		1	16	[illegible]	[illegible]	
September			21	[illegible]	[illegible]	
October		2	4	[illegible]	[illegible]	
November		2	10	[illegible]	[illegible]	
December	1	1	[illegible]	[illegible]	[illegible]	
1901						
January	1	1	[illegible]	[illegible]	[illegible]	[illegible]
February	1	2	[illegible]	[illegible]	[illegible]	[illegible]
March		3	2	[illegible]	[illegible]	[illegible]
April	1		40	[illegible]	[illegible]	[illegible]
May				[illegible]	[illegible]	
June	1	2	60	[illegible]	[illegible]	
Total	[illegible]	19	[illegible]	[illegible]	[illegible]	[illegible]

Statistics of outgoing quarantine, port of Manila, P. I., for the fiscal year ended June 30, 1901.

Month	Vessels inspected	Crews inspected	Passengers inspected	Persons bathed and inspected	Crews of foreign vessels inspected	Passengers inspected	Persons bathed and disinfected
April	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Month	Regulations	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April	11	[illegible]	[illegible]						1
May	15	[illegible]	[illegible]						
June	6	[illegible]							
Total	[illegible]	[illegible]							

Number persons vaccinated, May [illegible]
Number persons vaccinated, June [illegible]

Total [illegible]

Summary of quarantine transactions at port of Manila, P. I., for the fiscal year ended June 30, 1901.

Total bills of health issued	[illegible]
Total vessels inspected	[illegible]
Total vessels held in quarantine	[illegible]
Total vessels disinfected	[illegible]
Total pieces baggage disinfected	[illegible]
Total pieces baggage inspected and passed	[illegible]
Total crews inspected	[illegible]
Total passengers inspected	[illegible]
Total persons vaccinated	[illegible]
Total persons held in quarantine	[illegible]
Total persons bathed and disinfected	[illegible]
Total persons rejected (outgoing quarantine)	[illegible]

Causes for rejection:

Smallpox	13
Plague	1
Plague suspects	3
Scarlet fever	1
Leprosy	1
Beri beri	1
Fever	10

EXHIBIT B.

Statistics of quarantine transactions at the port of Cebu, P. I., for the fiscal year ended June 30, 1901.

Month.	Vessels inspected—		Crew inspected.	Passengers inspected.		Bills of health issued.	Crew and passengers vaccinated.
	From foreign ports.	From domestic ports.		Cabin.	Steerage.		
1900.							
July	10	146	3,510	125	1,050	311	.....
August	8	167	3,465	108	1,154	301	.....
September	1	179	3,154	111	1,137	121	.....
October	3	150	2,689	117	1,021	134	.....
November	.....	170	2,769	120	1,104	130	.....
December	3	147	3,021	110	961	112	.....
1901.							
January	2	88	2,279	100	769	1	.....
February	6	69	3,624	120	558	4	.....
March	3	88	3,169	106	1,149	4	741
April	4	49	1,954	221	518	3	896
May	3	72	2,769	120	1,114	3	243
June	4	90	2,537	193	909	4	107
Total	47	1,415	34,940	1,551	11,444	1,128	1,987

Vessels quarantined for observation	2
Persons quarantined for observation	76

EXHIBIT C.

Statistics of quarantine transactions at the port of Iloilo, P. I., for the fiscal year ended June 30, 1901.

Month.	Vessels inspected—		Crew inspected.	Number of passengers inspected.		Bills of health issued.
	From foreign ports.	From domestic ports.		Cabin.	Steerage.	
1900.						
July	4	30	1,191	110	1,023	50
August	7	48	1,664	73	1,199	71
September	5	44	1,664	69	1,414	53
October	.....	40	1,303	112	1,412	53
November	1	51	1,723	164	2,573	50
December	1	45	1,595	107	1,058	43
1901.						
January	4	24	1,153	67	378	1
February	1	29	1,390	39	314	1
March	3	35	1,565	163	326	4
April	1	32	1,210	116	1,315	3
May	5	28	1,583	140	1,443	5
June	5	33	1,741	174	439	4
Total	37	439	17,782	1,334	12,394	338

PHOTOGRAPH A.—MARIVELES QUARANTINE, PORT OF MANILA, P. I.

MARIVELES QUARANTINE STATION.

The Mariveles Quarantine Station, situated on the bay of the same name [illegible] miles [illegible] Manila and [illegible] miles from Corregidor.

Mariveles Bay is well protected by hills on three sides, and the water therein is [illegible] even when a typhoon is blowing. The entrance to the bay is about [illegible] miles wide, free from dangers to vessels, and the depth of water at any portion is sufficient for vessels of the largest size. The bay is about 2 miles long and affords excellent anchorage for a large number of vessels.

The case of the wharf has already been described, but the photograph [illegible] gives a fair view of this structure and the building on it as it appears from the front. The [illegible] to the extreme left [illegible] designed for keeping the [illegible] and other [illegible] of steerage passengers while taking bath, then follows in order, building [illegible] feet long and [illegible] feet wide, [illegible] feet of which is the disinfecting chamber, [illegible] feet of [illegible] for disinfectants, [illegible] back of which [illegible] and trunks [illegible] wharf. There is [illegible] feet of free space in front of the building [illegible] and a walk of [illegible] feet in the back between the disinfecting chamber and the [illegible] steerage bath house.

It will be realized from this that the disinfecting [illegible] at the same time, and that a space [illegible] feet long and [illegible] feet wide [illegible] when it becomes necessary to disinfect [illegible] steerage passengers rapidly, handling the same.

The arrangement of the detention barracks and bath [illegible] steerage passengers is on what [illegible] and effective work, keeping [illegible] passengers before and after their bath.

In the center is the [illegible] passengers [illegible] as the bathing arrangements [illegible] passengers [illegible]

The Chinese are taken [illegible] passed [illegible] the [illegible] with water separate [illegible] joint-stock, the same being [illegible] check of the same number attached [illegible] baggage, are taken and placed in the [illegible] the corresponding check is placed [illegible] until either [illegible] detention. [illegible] the passengers are passed [illegible] two distant.

The plan has proved [illegible] that these passengers [illegible] of the water. I have tried [illegible] that are other.

The detention barracks [illegible] work, inside measurement [illegible] the road into two rooms [illegible] passengers before the bath [illegible] this character is of primary [illegible] passengers are divided [illegible] bathing [illegible] that they are either placed [illegible] room of this building [illegible] and sick, also facilitate [illegible]

From the detention barracks the passengers [illegible] general undressing room of the steerage [illegible] covered long corridor [illegible] must place his body [illegible] into the general bathroom [illegible] bath. After the bath, the [illegible] and stalls [illegible]

After the disinfection [illegible] baggage [illegible] bag [illegible] and [illegible] over a passageway building [illegible]

time and annoyance. Anyone who has not tried this method can not appreciate its advantage over the old, especially at night.

As shown by plan there is also a series of 7 baths provided with undressing, bath, and dressing rooms in a separate part of the steerage bath building for the women of the steerage and second class. In connection therewith there is a separate waiting room for this class of passengers.

The bath house for cabin passengers is arranged with a general waiting room, a central hall, and a series of four bathrooms on each side. Each section consists of an undressing, bath, and dressing room, the entrance and removal of unclean clothes being from the hall and the exit on the piazza in each case. One side is used for ladies and the other for gentlemen. At the farther end of the building two waiting rooms are provided, for ladies and gentlemen separately, each being furnished with complete toilet facilities, including stationary washstands.

Photograph "B" gives a good view of the back of the buildings described above, the wharf, and relative position of the different buildings, enumerated as follows: 1, house for keeping money of passengers; 2, detention barracks; 3, steerage passengers' bath house; 4, disinfecting shed, and 5, cabin passengers' bath house.

Photograph "C," another view, shows quite accurately the relative position of the buildings to the stone approach extending from the shore to the main wharf.

Photograph "D" also shows the bath houses and gives a fair idea of the surface and length of the wharf.

Exhibit 3 shows on a small scale the plant as it now exists, the relative position of the buildings on shore and the location of the fences.

"A" is the hospital, which is divided into two wards and a central hall. This building is 100 feet long and 30 feet wide, and has a piazza 8 feet wide on the front and ends. It has the water-closets, dining room, and kitchen on the back, the latter two being distinct buildings with connecting porches. Each toilet room in connection with this building is equipped with one bath tub and shower bath, one water-closet and one stationary washstand. The wards have a capacity of 10 beds each, and it is intended to use one for those actually sick from contagious diseases and the other for those affected with illness of a suspicious nature.

Building marked "B" is barracks No. 1, and is 100 feet long and 40 feet wide. This is divided into four large rooms, central hall, and two narrow ones through the wings. This existed during the Spanish régime, and was much dilapidated, without a roof, and in need of extensive repairs. It has been rebuilt and should be serviceable for a number of years. The annex on the back—dining room, kitchen, toilet rooms, and small porch—are new construction.

"C" represents barracks No. 2, which is 100 feet long and 40 feet wide, with a piazza 8 feet wide extending along the front and ends. The building is divided into two large rooms, with a central hall 10 feet wide. This has only recently been completed, and is admirably adapted for the accommodation of steerage passengers.

"L" is barracks No. 3, which has been rebuilt with the addition of porch, dining room, kitchen, and toilet rooms.

These three barracks just described are for the detention of steerage passengers and are equipped with 800 beds. The arrangement is such that the number in quarantine can be divided into six segregation groups with absolutely no communication with each other. The women can also be furnished quarters in rooms separate from the men.

A glance at the plan shows that the arrangement of the cross fences will not permit contact of the different groups, and that one guard can supervise all the buildings and watch all persons in detention.

A group is segregated in the end of each building and ample toilet facilities have been provided.

Each toilet room is furnished with three enameled-iron, automatic-flush water-closets, and a 3-foot enameled-iron urinal in one compartment and four shower baths in the other. All toilet rooms have tiled floors.

The small porch on the back of each building is divided into three compartments: A central one, connecting with covered passage to dining room and entered by door from hall of building, this for administrative purposes; two lateral ones, inclosed in lattice work, with doors opening into the central one. Door from ward or detention quarters enters this, and by this means the different groups are always kept separate and can receive their meals in the dining room at different times. So the only contact is that of dining in the same room as that in which the other group of the building have been fed. Each lateral section is equipped with six stationary, enameled-iron wash basins, thereby providing lavatories and means for securing water for drinking purposes.

All these buildings are constructed of hard lumber and well ventilated, the latter

PHOTOGRAPH C.—MARIVELES QUARANTINE, PORT OF MANILA, P. I.

a manner as to not only allow the escape of the [illegible] air from the [illegible] but
removal of the foul air from the wards. These shafts are [illegible] when
[illegible] of the rooms is performed.
[illegible] have tiled floors and a large cooking range with hot and cold water
[illegible] utensils and dishes with boiler for the same, so that everything appertaining
building is kept separate and distinct.
graph "E" shows the hospital and barracks [illegible]
[illegible] of the three barrack buildings for steerage passengers.
[illegible] again to Exhibit 3, "H" represents the location of the cabin passenger
[illegible] to be erected during this fall. It will be a substantial building, two stories
[illegible], and consist of [illegible] rooms with central and lateral halls. The length
[illegible] feet and width [illegible] feet [illegible]
[illegible] on the front and [illegible] the first story.
[illegible] "F" is constructed of stone and was [illegible]
[illegible]. It is [illegible] feet long and [illegible] feet wide [illegible]
[illegible]. This is used as a detention barrack for steerage passengers and [illegible]
[illegible] 25 persons. As already mentioned [illegible] accommodations
[illegible] allowed are inadequate. [illegible] been separated, painted,
[illegible] supplied with two lavatories containing [illegible] stations and washstands.
small building "I," situated just [illegible] feet wide
[illegible] of stone, and is divided by a partition into two rooms, supplied
[illegible] as the kitchen for cabin passengers' barracks and the other for steerage
[illegible] rooms, furnishing food for the [illegible] passengers [illegible]
[illegible] with one enameled-iron bath tub [illegible] and lavatories [illegible]
[illegible] stationary washstands.
represents the office building, [illegible] feet long and [illegible] feet wide [illegible]
[illegible] front room and four small rooms on the other portion. The former is
[illegible] for office and the latter as quarters for the hospital steward.
building "G" is of the same size as [illegible]
utilized for the medical officers' quarters.
[illegible] buildings just described are [illegible]
[illegible] station. They have a [illegible]
[illegible] in excellent condition. [illegible]
[illegible] into walks and flower beds [illegible]
A small pavilion [illegible]
building "P" is of [illegible]
[illegible] and 24 feet wide, [illegible]
[illegible] subdivided into [illegible]
[illegible] one large [illegible]
[illegible] wash basins [illegible]
[illegible] represents the [illegible]
and two shower baths [illegible]
building "R" [illegible]
graph "G" shows [illegible]
[illegible] also [illegible]
water is piped [illegible]
. The supply is also [illegible]
[illegible] pounds. [illegible]
[illegible] pounds and [illegible]
[illegible] among the [illegible]
[illegible] and [illegible]
[illegible] system [illegible]
[illegible] electric light plant [illegible]
[illegible] and [illegible]
[illegible] pounds and [illegible]
[illegible], and it is [illegible]
buildings will be [illegible]
[illegible] the running of a [illegible]
[illegible] water supply [illegible]
[illegible] and after [illegible]
[illegible] work [illegible]
[illegible] and [illegible]
[illegible] frequent [illegible]
[illegible] be compared [illegible]
[illegible] maintained at a cost
The advantage [illegible]

With the completion of the cabin-passenger barracks and the electric-lighting system, I believe the Marine-Hospital Service will have in operation the best equipped quarantine station in the Orient, and one that will compare favorably with most in other countries.

Respectfully submitted.

J. C. PERRY,
Passed Assistant Surgeon, U. S. Marine-Hospital Service,
Chief Quarantine Officer for the Philippine Islands.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

OFFICE CHIEF QUARANTINE OFFICER FOR PHILIPPINE ISLANDS,
MARINE-HOSPITAL SERVICE,
Manila, P. I., September 27, 1901.

SIR: I have the honor to herewith submit supplemental report of the quarantine service in the Philippine Islands for the period from July 1 to September 15, 1901.

The inspection of vessels is conducted at this station from 6 a. m. to 6 p. m., and during these hours all boats are boarded as soon as practicable after arrival. The crew and passengers are critically inspected.

All vessels are required to fly a yellow flag at the foremast upon entering the harbor and until the vessel has been inspected and given pratique.

No launches or lighters are allowed to come near the vessel until the quarantine officer has examined the ship. Little difficulty was experienced in instituting these regulations and they are universally respected and obeyed.

Vessels from Hongkong via Amoy and from Amoy direct are required to call at the Mariveles station for disinfection before coming up the bay to Manila, but with this exception the boarding is done in Manila Harbor, and if a ship is found infected the boat is remanded to Mariveles for disinfection and detention.

Nothing except the ordinary work of the station has occurred during the period covered by this supplemental report, and the transactions during this time are submitted below in tabulated form.

Statistics of quarantine transactions at the port of Manila, P. I., for the period from July 1 to September 15, 1901.

Month.	Vessels inspected.		Crew inspected.	Passengers inspected.	Crew vaccinated.	Passengers vaccinated.	Bills of health issued.
	From foreign ports.	From domestic ports.					
1901.							
July	56	201	9,634	8,916	54	1,569	282
August	52	173	9,601	7,808	23	963	212
September 1-15	17	88	3,792	1,930	12	381	117
Total	125	462	23,027	18,654	89	2,913	611

Month.	Vessels disinfected.	Vessels quarantined for observation.	Persons quarantined for observation.	Pieces of baggage disinfected.	Pieces of baggage inspected.	Persons bathed and disinfected.
1901.						
July	1	1	.....	3,471	5,187	.....
August	.....	.....	1	4,287	2,416	.....
September 1-15	.....	.....	.....	2,480	1,172	.....
Total	1	1	1	10,238	8,775	.....

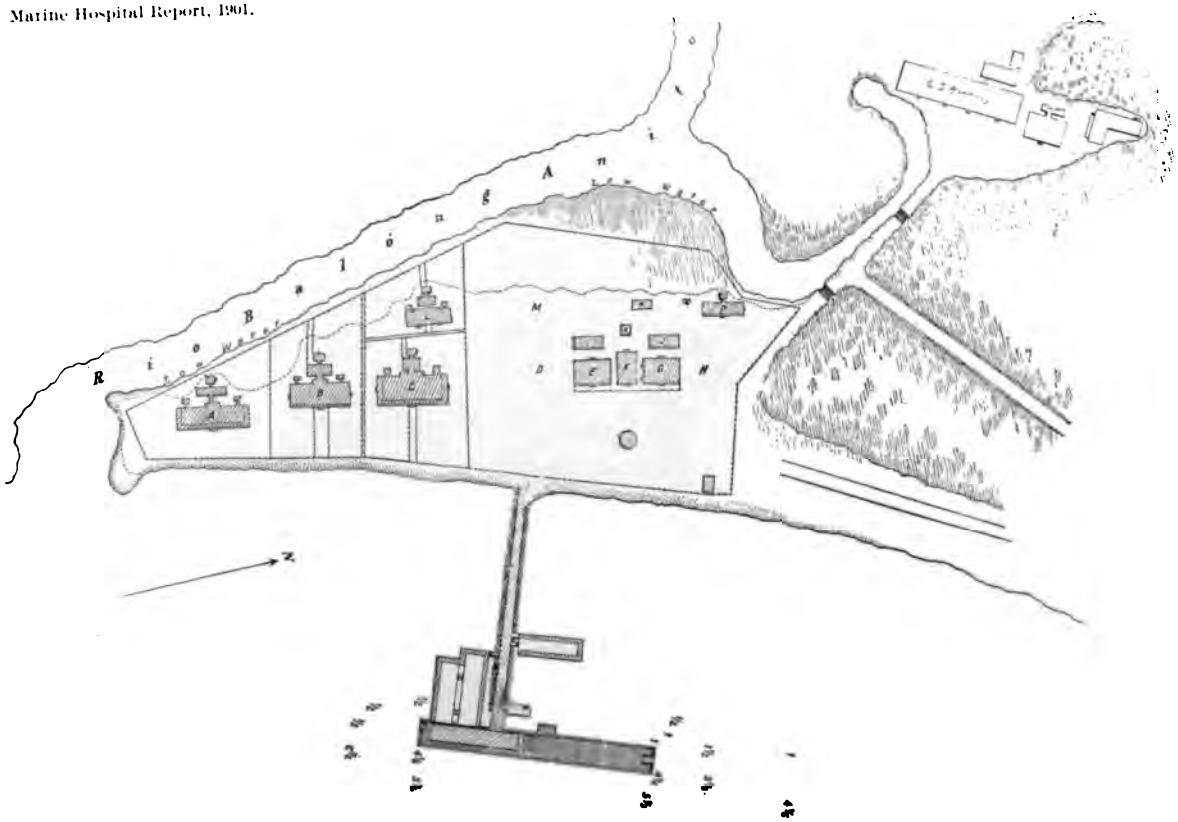

EXHIBIT NO. 3.—MARIVELES QUARANTINE STATION, PORT OF MANILA, P. I.

[illegible]

[illegible]	Vessels inspected.	Crews inspected.	Passengers inspected.	Ferry boats inspected.	Ferry boats passengers inspected.	Ferry crews inspected.	Pieces of baggage disinfected.	Not ...	Fever.	Plague ...
[illegible]										
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Number of bills of health issued	[illegible]
Number of vessels inspected	[illegible]
Number of vessels held in quarantine	1
Number of vessels disinfected	1
Number of pieces of baggage disinfected	[illegible]
Number of pieces of baggage inspected and passed	[illegible]
Number of crew inspected	[illegible]
Number of passengers inspected	[illegible]
Number of persons vaccinated	[illegible]
Number of persons held in quarantine	1
Number of persons inspected ...	12
[illegible]	
Plague suspects	[illegible]
Fever	[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1904				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]

Statement of public civil funds appropriated for the quarantine service in the Philippine Islands received and disbursed from July 1 to September 15, 1901.

DEBITS.

July 20. Received from treasurer Philippine Islands	$10,325.00
August 10. Received from treasurer Philippine Islands	10,000.00
September 13. Received from treasurer Philippine Islands	15,600.00
Total	35,925.00

CREDITS.

Disbursements:		
July—		
Pay rolls, officers and employees	$1,785.10	
Launch effects and supplies	351.93	
Office expenses	48.87	
Miscellaneous expenses	794.59	
August—		
Pay rolls, officers and employees	1,924.09	
Launch effects and supplies	354.32	
Office expenses	88.10	
Miscellaneous expenses	535.13	
Total credits		5,882.13
Balance in Hongkong and Shanghai Bank		30,042.87
Total		35,925.00

Respectfully submitted.

J. C. PERRY,
Passed Assistant Surgeon, U. S. Marine-Hospital Service,
Chief Quarantine Officer for the Philippine Islands.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

JAPAN.

YOKOHAMA—DEATH OF ACTING ASSISTANT SURGEON ELDRIDGE.

During the fiscal year 1901 an acting assistant surgeon of the Service has been kept on duty in the office of the United States consul-general at the port of Yokohama, Japan, and another acting assistant surgeon at the port of Kobe, Japan, but owing to the death of Acting Asst. Surg. Stuart Eldridge, the officer at Yokohama, no report from that port was received.

KOBE.

REPORT OF TRANSACTIONS AT THE PORT OF KOBE, JAPAN, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By Acting Asst. Surg. J. B. FOWLER.

OFFICE SANITARY INSPECTOR,
U. S. MARINE-HOSPITAL SERVICE,
Kobe, Japan, October 19, 1901.

SIR: I have the honor to send in my report of the transactions at the port of Hiogo (Kobe), Japan, covering the period from September 16, 1900, to and including June 30, 1901.

I have officially inspected 180 vessels bound for ports in the United States and ports in the possession of the United States (as Manila), being an average of one every [illegible] and a half days.

PHOTOGRAPH F.—MARIVELES QUARANTINE, PORT OF MANILA P. I.

PHOTOGRAPH F.—MARIVELES QUARANTINE, PORT OF MANILA P. I.

[illegible] of these ships, [illegible] were under the United States flag, [illegible] British, [illegible] Japanese, [illegible] German, 8 Norwegian, 1 Danish and 1 French.

Vessels bound to:

Manila	[illegible]
San Francisco	[illegible]
New York	[illegible]
Tacoma	[illegible]
Seattle	[illegible]
Portland	[illegible]
San Diego	[illegible]
Port Townsend	[illegible]
Puget Sound	[illegible]
Port Angeles	[illegible]
Royal Roads	[illegible]
Pacific Islands	[illegible]
Sailing ships cleared for Honolulu	[illegible]
Total	[illegible]

The crews of these vessels numbered [illegible] ships.

Of the vessels inspected, [illegible] were steamers and [illegible] sailing ships, and [illegible] carried steerage passengers [illegible]

Steerage passengers embarked [illegible]	[illegible]
Steerage passengers for Manila	[illegible]
Steerage Chinese through from Hongkong	[illegible]

The number of steerage passengers [illegible] gives a total of [illegible] for the [illegible] months.

United States transports [illegible]	[illegible]
United States transports [illegible]	[illegible]

None of the emigrants or steerage passengers [illegible] Japanese, in accordance with [illegible] Washington.

I use my own steam launch for [illegible]

All steerage passengers [illegible] thoroughly examined [illegible] the houses of the two large Japanese [illegible] being determined, their [illegible] and are there officially stamped [illegible] where they go through the [illegible]

PRIMARY [illegible]

Temperature of steam at [illegible] 300° F. Boiler pressure [illegible]

The application of the [illegible] furnished with eight [illegible] pressure to lift all the [illegible] tanks, on which the [illegible] the chamber diameter [illegible] inches apart. There [illegible] passes up through the [illegible] such openings at a time [illegible] walls.

This live steam [illegible] closed, the steam remaining [illegible] time.

The latch chamber [illegible] furnished with two [illegible] and to receive of [illegible] chamber as well as [illegible] disinfectant, permitting [illegible] the baggage, the [illegible]

Time of disinfection [illegible] live steam left on three [illegible]

[illegible] boarding work, having to depend on company launches, [illegible] the work. Considering the large number of vessels [illegible] as to the disinfecting hulk, which occurs almost daily, a [illegible] at all times for the purpose.

Sulphur disinfection of steamers.—Sulphur disinfection has been carried on by the various [illegible] companies at our suggestion, 12 steamers having been so certified on the [illegible] of health. A number of other vessels were disinfected by the ships' officers, [illegible] was not noted on the bill of health, as we were unable, through lack of time, [illegible] the work.

[illegible] "pot method" was used in this work, and is rather crude, but, in view of the [illegible] of the transmission of plague by means of rats, it seems a good precaution.

The U. S. army transport *Meade* was partially disinfected by the medical officer [illegible] port because of a case of smallpox landed here, the method being practically [illegible] by the United States quarantine regulations.

Disinfection of cargo.—Eleven thousand three hundred and thirty-three pounds of [illegible] hair were disinfected by steam during the time covered by this report.

[illegible] allowed was made to disinfect feathers, but the facilities were found entirely [illegible] for the disinfection of such bulky, unmanageable cargo. Upon receiving [illegible] from the Bureau, shippers were notified that this cargo might be shipped [illegible] vessels where the voyage occupied more than sixty days, or on steamers [illegible] for sixty days in rat proof lighters.

Disinfection of crews and steerage passengers.—Practically all vessels carrying [illegible] were required to observe this precaution. Two steamship lines plying [illegible] Japan and Australia, and calling at Manila to land cabin passengers, were [illegible] not required to do so. This exception applied to steamers carrying [illegible] Chinese crews, the stay in port being from twenty four to forty eight hours, [illegible] which time the crew and through steerage passengers were not allowed ashore. [illegible] carrying Chinese crews it is impossible for the officers to keep them aboard [illegible] in this port. From September 16, 1900, to June 30, 1901, 22,[illegible] individuals [illegible] bathed and 28,455 bundles of clothing and bedding were disinfected at the [illegible] disinfection station.

Facilities for disinfection.—Several years ago the Pacific Mail Steamship Company, [illegible] order to comply with the requirements of the Hawaiian sanitary authorities, [illegible] a disinfecting plant in their [illegible] warehouse. This consisted of one [illegible] chamber, a boiler, a hot water heater, and [illegible] bath tubs. Shortly after [illegible] and several of the shipping firms organized the [illegible] association by fitting [illegible] hulk for this purpose. This plant was first used in November last, though not [illegible] completed, as it was impossible during the [illegible] plague workmen, thousands [illegible] had left the city to escape plague.

[illegible] finding that more efficient work could be done at this plant because of its [illegible] from the city and nearness to the shipping, arrangements were made to [illegible] the Pacific Mail plant to the hulk. The advantages of the change were that it could be operated by regular employees, [illegible] having been employed at [illegible] gulches, and the practice of taking [illegible] which had been [illegible] by the Chinese [illegible] gulches, could be prevented.

The completed plant now consists [illegible] and [illegible] hulk, cleated of all unnecessary [illegible] and fitted with a [illegible] between [illegible], thus providing two decks of 4,[illegible] square feet each. The [illegible] deck (17 by [illegible] feet), fitted with a formaldehyde generator [illegible] the upper deck, the [illegible] of the space on this deck being occupied for the bath [illegible] The between-decks are heated by [illegible] steam [illegible] water heater [illegible] tanks, the small chamber 12 feet [illegible] and the bathroom (45 by 26 feet) [illegible] apartments, by means of [illegible] and formaldehyde generators [illegible] by the Bureau.

[illegible] Assistant Surgeon [illegible] arrived February [illegible] and [illegible] the disinfection.

The plant is operated by regular employees [illegible] 1 captain, 1 engineer, 1 fireman, 1 boatswain, [illegible] employed for polishing and [illegible] Lai Yat, as interpreter, who [illegible] immediate supervision. He has been [illegible] at our station, since its [illegible] and does [illegible] Cholera was imported [illegible] year. Thirteen cases and [illegible] quarantine [illegible] occurred [illegible] the city because of [illegible] excellent water supply.

dry out the baggage when the live steam is closed off, and heat the air and baggage while the latter is being spread out on the racks. These racks are 9 and 18 inches apart, admitting different sizes of packages. Ninety-nine per cent of Japanese baggage consists of telescoped willow bags, tied by means of rope.

The contents of these bags are divided between each half, which are labeled and kept together, and placed on the racks which extend on each side of the chamber, the center being open for a passageway between the doors.

Leather articles are disinfected with bichloride of mercury solution, 1 in 1,000.

Blankets are spread out.

The bags being of open straw work, the steam readily passes through the contents of the bags.

The number of pieces of baggage disinfected in this way was 409.

Dr. Boyer acts as inspector of the baggage fumigation.

The baggage is taken from the Japanese boarding house by coolies employed and under the supervision of Dr. Boyer to the disinfecting chamber the day before the vessel's departure. There, after undergoing the steam disinfection, it is stamped and then placed on board the steamer.

This period has been specially free from epidemics of sickness.

An outbreak of plague occurred in the town of Osaka the second week in September, 1900, when there were 13 cases and 13 deaths; in October, 15 cases, 9 deaths; in November, 22 cases, 17 deaths; in December, 8 cases, 7 deaths; making a total of 58 cases and 46 deaths. In Kobe and Hiogo, 3 cases and 1 death during the latter half of October, 1900. There has been no outbreak of plague in either place this year.

I am, sir, respectfully,

J. BUCKNILL FOWLER,
Acting Assistant Surgeon, Marine-Hospital Service, Sanitary Inspector, Kobe.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

OFFICE SANITARY INSPECTOR, U. S. MARINE-HOSPITAL SERVICE,
Kobe, Japan, October 26, 1901.

SIR: I have the honor to send in my supplemental report of the transactions at the port of Hiogo (Kobe), Japan, covering the period from July 1, 1901, to and including September 15, 1901.

I have officially inspected 54 vessels bound for ports in the United States and ports the possessions of the United States.

Of these ships, 12 were under the United States flag, 28 were British, 10 Japanese, 3 German, and 1 Belgian.

Three United States ships of war left here, 2 bound for Yokohama and 1 for Guam.

Their ports of destination were as follows:

Vessels bound to—	
Manila	12
San Francisco	10
New York	8
Tacoma	7
Seattle	8
Portland	5
Port Townsend	1
United States cruisers bound to—	
Yokohama	2
Guam	1
Total	54

The crews of these vessels amounted to 3,690, exclusive of those of the United States cruisers.

Of the vessels inspected, 48 were steamers and 6 sailing ships, and of the steamers 22 carried steerage passengers as follows:

Steerage passengers embarked here for the United States	179
Steerage passengers embarked here for Manila	5
Steerage Chinese through from Hongkong	1,602
Total	1,786

The number of steerage passengers, 1,796, added to the crews of all vessels inspected, 3,680, gives a total of 5,476 persons individually examined during the period of two and one-half months.

Seven of the emigrants or steerage passengers were vaccinated at Kobe prior to their departure, in accordance with instructions received from Washington.

The number of pieces of baggage disinfected for the period was 180.

There has been but one case of smallpox so far this year, and that ended in recovery.

I am, sir, respectfully,

J. BICKNELL FOWLER,
Acting Assistant Surgeon, Marine-Hospital Service,
U. S. Sanitary Inspector, Kobe.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

CHINA.

HONGKONG.

A medical officer of the Marine Hospital Service has remained on duty in the office of the United States consul general at Hongkong during the fiscal year 1901 for the purpose of inspecting vessels bound to the United States and of issuing bills of health to same in conjunction with the United States consul general.

USE OF FOOD PRODUCTS FROM SUSPECTED LOCALITIES.

On December 4, 1900, the medical officer on duty at Hongkong was instructed to use food products destined for America, provided they did not, to his personal knowledge, originate in an infected locality, and he was informed that if goods were shipped which he could not thus use they would be subject to disinfection upon arrival in the United States. He was also instructed to note such shipments on the freight manifest for the information of the quarantine officer at the port of arrival.

USE OF FREIGHT BOUND FOR HONOLULU.

On May 29, 1901, the chief quarantine officer for Hawaii requested that the medical officer on duty in Hongkong be directed to use freight destined for Honolulu, and also to notify said chief quarantine officer of the suspected shipment of freight which might be considered doubtful from a sanitary standpoint. Instructions were issued to this effect June 6, 1901.

REPORT OF TRANSACTIONS.

[illegible] of Transactions at the Port of Hongkong, China, [illegible] Year ending June 30, 1901, [illegible] Francisco, [illegible] June 30, 1901, inclusive.

By Asst. Surg. Louis W. [illegible]

Marine Hospital Service,
Hongkong, China, Sept. [illegible], 1901.

SIR: I have the honor to submit a report of transactions at Hongkong, [illegible] September 10, 1900, to and including June 30, 1901.

The following table shows the number of [illegible] vessels, their character, their consul destination, number of officers and crew, [illegible] steerage passengers, and the number rejected for various causes.

Certificates of health were also given to three United States naval vessels at the request of the commanders and upon the certifiate of the medical officer aboard. Two of these vessels were destined to Canton and one to Shanghai, as will be seen in the table:

Destination.	Steam.	Sail.	Crew.	Cabin.	Steerage.	Rejected.
San Francisco	39	.....	5,390	751	6,238	103
Puget Sound	36	9	2,869	74	696	26
Columbia River	14	8	504	7	19	2
San Diego, Cal	7	.....	346	8	99	4
New York	33	5	1,223	6	.....	6
Philippine Islands	200	1	13,592	2,028	5,682	89
Chesapeake Bay	1	1	54	.....	.....	.....
Guam	.....	1	11	1	.....	.....
Canton	2	.....	331	.....	.....	.....
Shanghai	1	.....	176	.....	.....	.....
Total	333	25	24.496	2,875	12,734	230

Thus it will be seen that 358 bills of health were issued, 355 of that number being inspected prior to sailing.

Inspection of steamers.—The last visit to the vessel prior to sailing, for the purpose of giving the bill of health, is made as near the sailing hour as possible, when the forecastles, steerage quarters, and the ship's papers are inspected, and the crew and steerage passengers are given a physical examination.

Every effort is made to detect elevation of temperature, as such cases have been regarded as suspicious and are not allowed to proceed on the voyage.

After May 1, 1901, all Asiatic steerage traffic to the Philippine Islands, on request of the chief quarantine officer of those islands, was prohibited because of the severe epidemic of plague in this port. Asiatics wishing to travel to the Philippine Islands as cabin passengers were required to present evidence that they really belonged to the class who usually travel as first-class passengers, and in addition were required to undergo certain restrictions, prior to embarkation, which would render them unlikely of carrying the infection of plague.

These passengers were in many cases required to reside for fifteen days in districts of the city considered noninfected, calling at this office from time to time until the departure of their steamer, when they were given the following certificate, without which it was impossible for them to secure passage. This requirement has been rigidly enforced throughout the epidemic, and in consequence has greatly increased the office work.

MARINE-HOSPITAL SERVICE,
OFFICE OF MEDICAL OFFICER IN COMMAND,
Hongkong, ——— —, *190—*.

In my opinion ——— ———, bearing registry certificate No. ——, is at present free from quarantinable disease and may be accepted as a first cabin passenger to ——— ———, per steamship ——— ———, subject to medical inspection just prior to the hour of sailing.

———— ————,
Assistant Surgeon, Marine-Hospital Service.

From May 1 to June 30, 104 such certificates were issued and more than double that number were refused. The rejections only included the communicable diseases and cases of fever above 37.4° C., which were detained as probable sources of danger. Among the number rejected were two cases of leprosy.

As parasitic skin diseases, trachoma, tuberculosis, and beri-beri are common among Asiatic steerage passengers, it is to be regretted that this class of diseases, can not also be prevented from embarking until after complete recovery.

Inspection of cargo.—All classes of Chinese cargo have been inspected many times to render ourselves familiar with their character, and a routine inspection of cargo carried by certain lines has been made. Until information was received from the Bureau regarding the unlikelihood of certain Chinese food products carrying infection, the United States quarantine regulations were rigidly enforced against this class of freight, large quantities being prevented from going. The method by which this was done has been described in the weekly reports, and consisted in the inspection of all shipping orders prior to loading the cargo. The consular invoices were also used.

We have no facilities for boarding work, having to depend on company launches, which at times greatly retards the work. Considering the large number of vessels necessary to steamers, as well as to the disinfecting hulk, which occurs almost daily, a launch should be at our disposal at all times for this purpose.

Fumigation of steamers.—Sulphur disinfection has been carried on by the various steamship companies at our suggestion, 12 steamers having been so certified on the bill of health. A number of other vessels were disinfected by the ship's officers, which was not noted on the bill of health, as we were unable, through lack of time, to supervise the work.

The [illegible] method" was used in this work, and is rather crude, but as a [illegible] against the transmission of plague by means of rats, it seems a good precaution.

The [illegible] army transport *Warren* was partially disinfected by the medical officer [illegible] the port because of a case of smallpox landed here. The method being practically that required by the United States quarantine regulations.

[illegible] Eleven thousand three hundred and [illegible] were disinfected by steam during the [illegible].

[illegible] was made to disinfect feathers, [illegible] the disinfection [illegible] the Bureau, shippers were notified that the cargo [illegible] where the voyage [illegible] have [illegible] after storing for sixty days in rat proof [illegible].

The [illegible] Brisbane [illegible] were required to observe this precaution. [illegible] between Japan and Australia, [illegible] Manila [illegible] passengers [illegible] not required [illegible]

[illegible]

were bathed and [illegible]

[illegible]

Smallpox appeared in the early spring and reached epidemic proportions in March, 1901, declining rapidly with the advent of hot weather. The first reported case was imported from Swatow, but in all probability the infection came from Canton, as that city experienced a severe epidemic about that time. Vaccination was enforced on outgoing vessels (when vaccine virus was obtainable) until the last week of May, being discontinued at that time because of the oncoming plague epidemic. From January 1, 1901, to June 30, 89 cases and 57 deaths were reported in the colony. The disease still lingers, but attracts little attention except during epidemics.

Plague has prevailed more or less throughout the year, cases having been reported every week since January, 1901, excepting the week ending February 9, 1901. Early in April the cases rapidly increased and continued to do so until the last week of May, when the turning point was reached.

During the months of May and June 1,129 deaths were reported as due to this disease alone. The decline was gradual until the last week in July, when the cases fell from 15 and 20 a day to 1 and 2 a day, and at the date of writing very few cases are reported.

More septicæmic and pneumonic cases were seen at the beginning of the epidemic; the virulence was greater and the mortality higher than toward the end of the epidemic. The bacillus was easily demonstrable in most cases, though not commonly in the blood from the ear except in septicæmic types.

Dr. Thompson, colonial surgeon in charge of the epidemic hospital, stated that the presence of bacilli in the blood was a very grave prognostic sign. Local ulcers and blebs suggested themselves many times as the primary site of inoculation. Widespread hemorrhagic infiltration of the meso-sigmoid, peritoneum, and mesentery were particularly characteristic necropsy findings.

The epidemic attracted especial attention because of the relatively large number of Europeans attacked, though in them the disease was not so fatal.

The area of infection was widespread and the danger of transmission was great, as was evidenced by the number of steamers developing the disease in the harbor or after having left the port. Cases such as the steamship *Carlisle City*, which developed the disease several weeks after having left an infected port, point to rats as the mode of infection and suggest the most effective means of guarding against such instances by means of sulphur disinfection.

Beri-beri is always present and occasionally becomes epidemic in character. A limited epidemic recently developed among the employees of the Hongkong Godown Company.

Respectfully,

JOHN W. KERR,
Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Hongkong, China, September 20, 1901.

SIR: I have the honor to submit a supplemental report of this station from July 1, 1901, to September 15, 1901.

The table given below indicates the number and character of vessel, crew, cabin and steerage passengers, and the number rejected for various causes during the time covered by this report.

During the year ending September 15, 1901, there were 441 bills of health issued. The total crews aboard these vessels amounted to 30,257; total cabin passengers, 3,484, and total steerage passengers, 15,007.

Destination.	Steam.	Sail.	Crew.	Cabin.	Steerage.	Rejected.
San Francisco	10	3	1,445	153	1,451	41
Puget Sound	11	.....	1,076	26	275	7
Portland	3	2	240	4	17	.....
Philippine Islands	45	.....	2,720	426	530	28
New York	6	.....	280	.....	.....	.....
Total	78	5	5,761	609	2,273	76

During this period 6,453 baths were given at the disinfecting station, 8,651 bundles of clothing and bedding and 9,332 pounds of human hair were disinfected by steam. In addition five steamers were disinfected to kill rats, the pot method being used to burn the sulphur.

Asiatic steerage passenger traffic to the Philippine Islands is still prohibited, and health certificates are still issued to Asiatics wishing to travel as first cabin passengers. 120 such certificates have been issued since July 1, 1901.

The plague epidemic rapidly declined early in July, 181 deaths being reported during that month as against 572 from the same cause during June.

Less than 30 deaths were reported during August, showing that the epidemic is practically over for this year, although a few cases continue to occur.

Plague may be considered endemic in this city, and while there is less danger of transmitting the infection during the winter months, arrivals from this port should always be considered as from an infected port.

One case of smallpox was reported during the time covered by this report, which shows that the disease still lingers. The city itself is situated on the northern shore of the island, the buildings extending along the water front for a distance of 10 miles, and up the hillsides for a distance of 800 feet above high water mark. The European quarter occupies the central portion of the city and the peak, with the thickly populated Chinese district on either side. The city is divided into ten health districts in which are located 7,[illegible] dwellings. An idea of the dense crowding may be formed when it is known that the population of the city is 1,[illegible] per acre, more than [illegible] the average population of the most densely populated large city of the British Isles. Poverty, disease together with the character of the Chinese residents make it very difficult to effectually combat infectious diseases.

Respectfully,

JOHN W. KERR,
Surgeon, U. S. Marine-Hospital Service.

The Surgeon-General U. S. Marine-Hospital Service.

EUROPE

RECALL AND TRANSFER OF OFFICERS AT CERTAIN EUROPEAN PORTS

The medical officer of the Marine-Hospital Service serving in the office of the United States consul-general, Berlin, Germany, was recalled April 5, 1901. The officer serving in the consul-general's office in Paris, France, was recalled April 11, 1901. The officer on duty in the United States consul-general's office, Vienna, Austria, was transferred to London September 1, 1900, and ordered to Liverpool, England, September 7, 1900. This officer inspected outgoing vessels and signed bills of health in conjunction with the consul, under the law approved February 15, 1893, until January [illegible], 1901, when he was relieved of this duty. On January [illegible], 1901, he was assigned to the duty of inspecting emigrants bound for Canadian ports, report of which work appears in another part of this volume. An officer has been continued on duty in the office of the United States consul-general, London, England, during the fiscal year 1901, with the exception of short tours of duty at several other ports.

PARIS

[illegible]

[illegible]

[illegible] I have the honor to make the [illegible] which statement at the office of the [illegible]

This detail comprised the period [illegible] and which time I remained in Paris [illegible] September 28, 1900, when I was [illegible]

The Bureau letter outlining my instructions stated: "It is expected that you will gain all possible information regarding the sources of the emigrants and the methods of their collection and shipment to the seaports for transshipment to the United States. The Bureau desires especially to know whether quarantinable diseases prevail in the regions where the emigrants are collected, and the methods pursued by the Government officials and by the representatives of the steamship lines in the medical examination of the same. You will keep posted on the development and progress of any epidemic disease in Europe or the Far East. By keeping in touch with the bacteriological laboratories of your city you will also gain valuable information."

These instructions left me considerable discretionary power as to what I should do, and it seemed to me that in the absence of bubonic plague at any point in France, I should quietly establish such a position as would enable me to act upon the first rumors of an epidemic, in order to furnish the Bureau with accurate information and to put into immediate effect such precautionary measures in regard to travel to the United States as the Bureau might order.

After reporting to United States Consul-General John K. Gowdy, by whom I was most cordially received, I was, by the courtesy of Special Agent Williams, chief of the European office of the United States Treasury Department, allowed to establish myself at a desk in his office adjoining the consulate. I soon after paid my respects to the United State ambassador, and was kindly offered any assistance in his power.

I was successful in establishing very pleasant relations with the director of charities and public health, under whose department comes all the quarantine and epidemic service of France, with the inspector-general of the sanitary service, with the chief of the bureau of statistics, and others. I also made the acquaintance of the heads of the various trans-Atlantic steamship lines, nearly all of whom have offices in Paris. This, supplemented with the offices I had visited in Havre, Boulogne, and Marseille, gave me very ready means of investigating the movements of emigrants. Among my other associations on whom I counted for information were those with the newspaper fraternity. Besides the French news agencies, the Associated Press, and several American papers published regularly in Paris, many papers maintain special correspondents there. My pleasant relations with these gentlemen allowed me to speedily investigate rumors that frequently arose. It was my privilege to report to the Bureau the exact source and reliability of some news articles from Paris on the subject of plague.

After becoming thus established I endeavored to follow the instructions of the Bureau in regard to furnishing information. To this end two reports were sent weekly, one giving all the news of epidemics, both in France and without, that it was possible to obtain, as well as the precautions taken by the French authorities against these diseases, and a second giving general items of sanitary interest, especially the report of scientific advances made at the various institutions, many of which I visited regularly.

In addition to these reports and several translations of articles I thought might interest the Bureau I was able to send in special reports on the following subjects: "The sterilization of potable water, (1) by chloric peroxide, (2) by ozone." (Published in Public Health Reports, Vol. XV, No. 44.) "The present special precautions taken at the various ports of France against the introduction of bubonic plague." "The disinfecting apparatus exhibited in the section of hygiene at the Paris Exposition." (Published in Public Health Reports, Vol. XVI, No. 9.) "Emigration through France to the United States." (Published in Public Health Reports, Vol. XV, No. 50.) "The municipal disinfecting service of the city of Paris." (Published in Public Health Reports, Vol. XV, No. 49.) "Review of French literature of the past four years on the subject of disinfection by formic aldehyde gas." (Published in Public Health Reports, Vol. XVI, No. 9.) "Influenza or grip in Paris, with a history of the present outbreak."

Outside of this work and wishing to avail myself of the advantages at hand I took up regular work in the laboratory of the Pasteur Institute under the division of "biological chemistry applied to hygiene." This work continued until February, when I went to the laboratory of the Hospital Saint Louis to remain until receiving my orders to return to the United States.

During the months of July and August I had the pleasure of attending the Congresses of Applied Chemistry, of Medicine, and of Hygiene. At the first I had the honor to represent the Service as a delegate.

With the close lines of communication between France and the United States it is fortunate that plague has not succeeded in entering that country, but had it done so I believe the Service was prepared and would have been able to immediately insti-

[illegible] both at Paris and the ports of France any measures regarding both freight and passengers that might have been necessary to prevent the transportation across the [illegible]

Respectfully,

[illegible]
Assistant Surgeon, Marine-Hospital Service.

The Surgeon-General Marine-Hospital Service.

LIVERPOOL.

Report of Transactions at the Port of Liverpool, England, from September 1, 1900, to January [illegible], 1901.

By Asst. Surg. [illegible]

Liverpool, England, [illegible]

Sir: I have the honor, in obedience to [illegible] the following report of the transactions at this port [illegible] 1900, to and including June 30, 1901.

[illegible] have been [illegible] the report. The first [illegible] purposes [illegible] from January [illegible] 1901, and [illegible] passengers for Canada [illegible] the Report:

[illegible]

[illegible]

[illegible] of the movement of sailing [illegible] during the ja

actually go on the ship, and if one does not see all the persons who do go there is little use in seeing any. Of course, the difficulty could be arranged by inspecting the ships after they leave the dock and are in the river; but this would necessitate the employment of a tug or launch at great expense, though in case of an epidemic in Liverpool it would, perhaps, be the wisest course to adopt.

All steerage passengers were required to present the usual inspection card at the time of inspection, and as each person was passed the card was stamped and numbered by an automatic numbering and counting machine. In this way an exact account of the number of passengers passed was had and the number so found was entered on the bill of health. There were attempts made by two of the lines to have put a greater number of steerage on the bill of health than I had seen and counted, but after I had delayed their ships once or twice for an hour while search was made for the persons with unstamped cards they ceased to try to deceive me and would not allow any steerage to embark after a certain time unless their cards were stamped and numbered.

The freight question gave but little trouble, as the consulate here has always had a thorough understanding with the shipping people in regard to prohibited articles in strict accordance with the revised regulations. The vessels leaving this port were, during my service, with three exceptions, steamers. Not one was under the American flag.

Only one ship left without inspection and bill of health, and it was an undoubted case of carelessness on the part of the captain. I refer to the steamship *Lackawanna*, for Philadelphia, a report of which was made to the Bureau on October 23, 1900.

The number of ships and persons inspected from September 7 to November 17, when the inspection was discontinued by the Bureau, was as follows:

Ships inspected	222
Cabin passengers examined	12,269
Steerage passengers examined	12,820
Crew examined	17,596
Total	42,685
Rejections for various causes	33
Pieces of Glasgow baggage disinfected	47
Pieces of Russian baggage disinfected	157
Supplemental bills of health	5
Smallest number of ships in one week	15
Largest number for one week	26

* * * * * * *

Respectfully,

JOHN F. ANDERSON,
Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

LONDON.

REPORT OF TRANSACTIONS AT THE PORT OF LONDON, ENGLAND, DURING THE FISCAL YEAR ENDED JUNE 30, 1901; ALSO SUPPLEMENTAL REPORT OF TRANSACTIONS FROM JULY 1 TO SEPTEMBER 15, 1901, INCLUSIVE.

By P. A. Surg. A. R. THOMAS.

LONDON, *September 24, 1901.*

SIR: I have the honor to submit the following report of the transactions of the Service at this station for the fiscal year ending June 30, 1901.

As the inspection of vessels sailing from this port for ports in the United States had been discontinued on June 30, 1900, by official order, the work of the station has been largely that of observation of sanitary conditions in London and Great Britain, and the giving of advice to consuls and shippers regarding the regulations governing various classes of freight. Our attention has been particularly directed toward the occurrence of plague, of which a number of isolated cases have occurred at the various ports of Great Britain, as well as a more extended outbreak at Glasgow and a limited ship infection at Hull.

On August 4, 1900, I reported to the Bureau the occurrence of plague among the crew of the steamship *Rome* at this port. There were two cases that were diagnosed bacteriologically after having been taken to hospital, and two of their fellow sailors, who had died previously, were later thought to have had plague. The history of these cases is interesting because of the long period that must have elapsed since the last exposure. All the cases were among the Lascar crew of a steamship arriving from Sydney, Australia, by Aden, and the first case did not develop until several days after reaching this port, the sanitary history of the voyage and the medical inspection at quarantine having been satisfactory. No secondary cases arose from the above.

On August 13 notice was given to the London shipping houses through this office that dried fruits as well as new and second-hand rugs and carpets from Smyrna were prohibited from entering into the United States owing to Smyrna being an infected port.

On August 29, in accordance with instructions from the Bureau, I proceeded to Glasgow, Scotland, owing to a report of plague being present in that city. The city was declared infected on the 28th, and I remained attached to the consulate there until November 27, when I received orders to return to London. An inspection of all vessels, persons, and things going to the United States was established, and later I was instructed to carry out a similar inspection of vessels for Canadian ports at the request of the Canadian Government. I visited the offices of the principal steamship lines doing business with America, and I found them most ready to cooperate in any measures that I thought necessary. The following letter was therefore sent to the shipping houses:

"Sir: I have to inform you that the following will be enforced regarding vessels, their passengers and cargo, sailing from Glasgow to any port in the United States or Canada. Inspection of vessels will be made by daylight as late before sailing as possible. As regards passengers, steerage passengers from Glasgow will be passed only after inspection and the disinfection of their baggage. Steerage passengers in transit will be passed after inspection of their persons and their baggage. Cabin passengers will be passed after inspection. As regards cargo, raw merchandise may generally be shipped. American products such as [illegible] and hair brushes etc. should be accompanied by a certificate that [illegible] were gathered and that they had not been [illegible] rags. Rags from whatever source [illegible] and similar articles can only be shipped after [illegible] tested, fresh and unsalted and smoked meat [illegible] be shipped. The same applies to [illegible] fumigated. In case of doubt as to [illegible] this office. * * * In mooring boats in the city [illegible] mooring lines with the funnels of some [illegible] passengers [illegible]

"Later the shipping of rags and similar articles was [illegible] A few trains [illegible] various places a position [illegible] as possible to shipping with the [illegible] Surgeon H. [illegible] arrived to assist me [illegible] great delay to vessels. The [illegible] passengers at about the same time [illegible] which [illegible]

"The system of inspection as established [illegible] The law before sailing as much baggage as possible [illegible] the baggage of such as was necessary [illegible] baggage of the few steerage passengers [illegible] steerage. This process of inspection [illegible] ing of such passengers in order to [illegible] steerage passengers. Incidentally all first and [illegible] gage. Steerage passengers were [illegible] as the inspection by the physician. [illegible] passengers were kept out of baggage [illegible] examined on boarding and [illegible] persons as they came on board at various [illegible] finally it became necessary to restrict [illegible]

"The inspection of the vessel and [illegible] with the officers of the board. [illegible] hard problem and probably the most [illegible] to an all present and often there were [illegible] were passed before the examining [illegible]

Certificates of health were also given to three United States naval vessels at the request of the commanders and upon the certifiate of the medical officer aboard. Two of these vessels were destined to Canton and one to Shanghai, as will be seen in the table:

Destination.	Steam.	Sail.	Crew.	Cabin.	Steerage.	Rejected.
San Francisco	39	.....	5,390	751	6,238	103
Puget Sound	36	9	2,869	74	696	26
Columbia River	14	8	504	7	19	2
San Diego, Cal	7	.....	346	8	99	4
New York	33	5	1,223	6	.....	6
Philippine Islands	200	1	13,592	2,028	5,682	89
Chesapeake Bay	1	1	54	.....	.....	.....
Guam	.....	1	11	1	.....	.....
Canton	2	.....	331	.....	.....	.....
Shanghai	1	.....	176	.....	.....	.....
Total	333	25	24.496	2,875	12,734	230

Thus it will be seen that 358 bills of health were issued, 355 of that number being inspected prior to sailing.

Inspection of steamers.—The last visit to the vessel prior to sailing, for the purpose of giving the bill of health, is made as near the sailing hour as possible, when the forecastles, steerage quarters, and the ship's papers are inspected, and the crew and steerage passengers are given a physical examination.

Every effort is made to detect elevation of temperature, as such cases have been regarded as suspicious and are not allowed to proceed on the voyage.

After May 1, 1901, all Asiatic steerage traffic to the Philippine Islands, on request of the chief quarantine officer of those islands, was prohibited because of the severe epidemic of plague in this port. Asiatics wishing to travel to the Philippine Islands as cabin passengers were required to present evidence that they really belonged to the class who usually travel as first-class passengers, and in addition were required to undergo certain restrictions, prior to embarkation, which would render them unlikely of carrying the infection of plague.

These passengers were in many cases required to reside for fifteen days in districts of the city considered noninfected, calling at this office from time to time until the departure of their steamer, when they were given the following certificate, without which it was impossible for them to secure passage. This requirement has been rigidly enforced throughout the epidemic, and in consequence has greatly increased the office work.

MARINE-HOSPITAL SERVICE,
OFFICE OF MEDICAL OFFICER IN COMMAND,
Hongkong, ——— —, *190—*.

In my opinion ——— ———, bearing registry certificate No. ——, is at present free from quarantinable disease and may be accepted as a first cabin passenger to ——— ———, per steamship ——— ———, subject to medical inspection just prior to the hour of sailing.

———,
Assistant Surgeon, Marine-Hospital Service.

From May 1 to June 30, 104 such certificates were issued and more than double that number were refused. The rejections only included the communicable diseases and cases of fever above 37.4° C., which were detained as probable sources of danger. Among the number rejected were two cases of leprosy.

As parasitic skin diseases, trachoma, tuberculosis, and beri-beri are common among Asiatic steerage passengers, it is to be regretted that this class of diseases, can not also be prevented from embarking until after complete recovery.

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[illegible] on the steamship *City of Kilkenny* from Calcutta and was removed to Glasgow. The latter case was practically convalescent when received.

January 15 I received orders to proceed to Newcastle and report on the steamship *Highland Prince*, which arrived in the Tyne January 11 with the history of having had the plague during the last voyage. Briefly, the history of this voyage was as follows: She was engaged in trade between Antwerp and the River Plate, and on her last trip had unloaded partly at Antwerp and partly at London and had left the latter port for the Plate. Ten days after leaving London rats were seen running about the deck in a dazed condition, and could easily be caught and thrown overboard, while several were found dead. Eight days later the cook became ill and in rapid succession the mate, captain, and two passengers, all the cases proving fatal except one passenger. About this time the vessel was off Malta and needed help, was towed out, and the diagnosis of plague confirmed. [illegible] were so ill and may have had pestis minor. The vessel proceeded to Marseilles, where she was disinfected, thence to Bari, Avezzano, where she was declared a quarantine, and thence to Romania. [illegible] after this process. Two other members of the crew [illegible] and were removed to hospital. [illegible] to board the vessel, and she was [illegible]

On my return from Newcastle I stopped at Hull, where a case was reported. I learned that the steamship *Prince* had arrived at that port [illegible] having left Alexandria, Egypt, [illegible] and departing at Algiers where [illegible] and departing Hull and [illegible] was marked by bad diet [illegible] days. Two days later two other members [illegible] complained of having influenza with [illegible] after the eight bones and at post mortem [illegible] The vessel was then [illegible] port of [illegible] the crew had [illegible] of people. [illegible] who had been employed [illegible] certain who had assisted at the post mortem [illegible] of some cases occurred [illegible] and a few proved fatal [illegible]

In these deaths from plague [illegible] engaged [illegible] a fortnight. He [illegible] there.

On May 1 [illegible] man from the transport [illegible] 11 after having taken [illegible] transport at Portsmouth [illegible] passenger [illegible] a passenger applied at the [illegible] suspicious [illegible] recovered from the plague [illegible]

Having had a considerable [illegible] with [illegible] essential to the [illegible]

Leaving the cases in charge of the [illegible] were received in charge [illegible] through vaccination and [illegible]

Respectfully [illegible]

The [illegible] May 11 [illegible]

Sir: I have the honor to [illegible] service of this station from [illegible]

During this period there [illegible]

Smallpox appeared in the early spring and reached epidemic proportions in March, 1901, declining rapidly with the advent of hot weather. The first reported case was imported from Swatow, but in all probability the infection came from Canton, as that city experienced a severe epidemic about that time. Vaccination was enforced on outgoing vessels (when vaccine virus was obtainable) until the last week of May, being discontinued at that time because of the oncoming plague epidemic. From January 1, 1901, to June 30, 89 cases and 57 deaths were reported in the colony. The disease still lingers, but attracts little attention except during epidemics.

Plague has prevailed more or less throughout the year, cases having been reported every week since January, 1901, excepting the week ending February 9, 1901. Early in April the cases rapidly increased and continued to do so until the last week of May, when the turning point was reached.

During the months of May and June 1,129 deaths were reported as due to this disease alone. The decline was gradual until the last week in July, when the cases fell from 15 and 20 a day to 1 and 2 a day, and at the date of writing very few cases are reported.

More septicæmic and pneumonic cases were seen at the beginning of the epidemic; the virulence was greater and the mortality higher than toward the end of the epidemic. The bacillus was easily demonstrable in most cases, though not commonly in the blood from the ear except in septicæmic types.

Dr. Thompson, colonial surgeon in charge of the epidemic hospital, stated that the presence of bacilli in the blood was a very grave prognostic sign. Local ulcers and blebs suggested themselves many times as the primary site of inoculation. Widespread hemorrhagic infiltration of the meso-sigmoid, peritoneum, and mesentery were particularly characteristic necropsy findings.

The epidemic attracted especial attention because of the relatively large number of Europeans attacked, though in them the disease was not so fatal.

The area of infection was widespread and the danger of transmission was great, as was evidenced by the number of steamers developing the disease in the harbor or after having left the port. Cases such as the steamship *Carlisle City*, which developed the disease several weeks after having left an infected port, point to rats as the mode of infection and suggest the most effective means of guarding against such instances by means of sulphur disinfection.

Beri-beri is always present and occasionally becomes epidemic in character. A limited epidemic recently developed among the employees of the Hongkong Godown Company.

Respectfully,

JOHN W. KERR,
Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Hongkong, China, September 20, 1901.

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Philippine Islands	45	.....	2,720	426	530	28
New York	6	.....	280	.....	.....	.....
Total	78	5	5,761	609	2,273	76

During this period 6,[illegible] baths were given at the disinfecting station, [illegible] bundles of clothing and bedding and [illegible] pounds of human hair were disinfected by steam. In addition five steamers were disinfected to kill rats, the pot method being used to burn the sulphur.

Asiatic steerage passenger traffic to the Philippine Islands is still prohibited, and health certificates are still issued to Asiatics wishing to travel as first-cabin passengers. [illegible] such certificates have been issued since July 1, [illegible].

The plague epidemic rapidly declined early in July, [illegible] deaths being reported during that month as against [illegible] from the same cause during June.

Less than [illegible] deaths were reported during August, showing that the epidemic is practically over for this year, although a few cases [illegible] occur.

Plague may be considered endemic in the city, and while there is less danger of transmitting the infection during the winter [illegible] arrivals from the port should be considered as from an infected port.

One case of smallpox was reported during the [illegible] report, which shows that the disease still lingers. [illegible] the buildings extending [illegible] water [illegible] up the hillside for a distance [illegible] high water mark. The European quarter occupies the central portion of the city and the peak, with the Chinese [illegible] on either side. The [illegible] which are located [illegible] dwellings. An idea of the density [illegible] that the population of the [illegible] of the most densely populated [illegible] Brooklyn. [illegible] together with the charts [illegible] effectively combat infectious diseases.

Respectfully,

[illegible]

The Surgeon General, U. S. Marine-Hospital Service.

EUROPE

RECALL AND TRANSFER OF OFFICERS AT CERTAIN EUROPEAN PORTS

The medical officer of the Marine-Hospital Service serving at the office of the United States consul general, Berlin, Germany, was recalled April 5, [illegible]. The officer serving at the consulate-general office in Paris, France, was recalled April [illegible]. The officer at [illegible] in the United States consulate-general office, Vienna, Austria, was transferred to London, September [illegible], and to Liverpool, England, September 7, [illegible]. The officer inspected outgoing vessels and signed bills of health in connection with the [illegible] law approved February [illegible] and [illegible] was relieved of this duty. On January [illegible] he was assigned to the duty of inspecting emigrants [illegible] ports, reports of which work appears in another part of this volume. [illegible] have been continued on duty in the office of the United States consulate-general, London, England, during the fiscal year [illegible] the [illegible] short tours of duty at several other ports.

PARIS

[illegible]

[illegible]

[illegible]

Sir: I have the honor to [illegible] transmit to you a statement of the office [illegible] at Paris, France.

This detail comprises the period [illegible] April 1, 1901, during which time I remained [illegible] the date of August 30 and September 30, 1902, when I was [illegible] month.

CUBA.

ESTABLISHMENT OF BARRACKS FOR DETENTION OF IMMIGRANTS AT THE PORT OF HABANA.

To prevent an outbreak of yellow fever in Habana among newly arrived nonimmune immigrants, Governor-General Wood proposed the establishment of a detention station for such immigrants outside the city of Habana, to which they would be conveyed immediately upon arrival, there to remain until employed on the plantations, thus avoiding the necessity of passing through the city. It was the desire of Governor-General Wood that this camp be under the immediate supervision of a medical officer of the Marine-Hospital Service. The following communication from the chief quarantine officer for the island of Cuba explains the idea of establishing such a camp.

HABANA, CUBA, *September 10, 1900.*

SIR: Referring to my telegram of September 8, 1900, in regard to the establishment of immigrant barracks upon the hills across the bay back of Triscornia, I have the honor to report that the governor-general is taking this action in order to prevent the large number of immigrants expected from Spain and the Canary Islands from entering the city of Habana, thereby contracting yellow fever and distributing it throughout the country districts. After passing through quarantine inspection they will be detained in these barracks until they can be sent out to the plantations where they are to be employed.

General Wood wishes Dr. Menocal, of this Service, to take immediate charge of these barracks. I consider this movement a wise measure, and can spare Dr. Menocal for the service, and request your approval of the same.

I inclose herewith copy of Special Orders, No. 155, instituting a board of officers to carry out the project as soon as possible.

Respectfully,

A. H. GLENNAN,
Surgeon, U. S. Marine-Hospital Service,
Chief Quarantine Officer for the Island of Cuba.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Inclosure.]

SPECIAL ORDERS, No. 155.

HEADQUARTERS DIVISION OF CUBA,
Habana, Cuba, September 8, 1900.

3. A board of medical officers, to consist of Maj. Valery Havard, Medical Department, chief surgeon of the division; Maj. William C. Gorgas, Medical Department, chief sanitary officer, city of Habana; Surg. A. H. Glennan, U. S. Marine-Hospital Service, chief quarantine officer for the island of Cuba; Dr. Augustin Varona; Dr. Vicente Benito Valdes; Acting Asst. Surg. T. C. Lyster, U. S. Army, will meet at the office of the chief surgeon of the division, at 10 o'clock a. m., September 10, 1900, or as soon thereafter as practicable, to inquire into and report upon the advisability and feasibility of establishing a detention camp near Triscornia, Cuba, for the detention of immigrants who arrive in this port, in order that the spread of infection in the city of Habana may be prevented.

This board will also consider all particulars, such as erection of frame buildings, including details relating to establishment of immigration bureau, etc., deemed necessary for the establishment of such a camp.

The travel enjoined is necessary for the public service.

By command of Major-General Wood:

H. L. SCOTT, *Adjutant-General.*

In accordance with the request of Governor-General Wood, an acting assistant surgeon of the Marine-Hospital Service was detailed for duty at the Triscornia detention camp, but was retained on the rolls of the Marine-Hospital Service.

[illegible] medical inspection of [illegible] immigrants at the various ports [illegible] year ended June 30, 1901.

[illegible]

PORTO RICO.

[illegible] immigrants at the various ports [illegible]

[illegible]

QUEBEC, CANADA.

[illegible] of the Commissioner-General of Immigration [illegible] of the Marine-Hospital Service was detailed to the port of [illegible] Canada, for the purpose of inspecting immigrants [illegible] United States. He assumed his duties in Quebec May [illegible]

[illegible] at the Port of Quebec, Canada [illegible]

By Asst. Surg. [illegible]

[illegible]

[illegible] the immigrants [illegible] inspection [illegible] May [illegible]

During this period there were inspected 3,626 immigrants; passed, 3,575; detained, 51. The cause of the detention and the final disposition of the cases is shown in the medical and surgical report herewith inclosed.

The conditions under which the inspection must be made are very unsatisfactory, and a thorough inspection under the present arrangement is impossible. A new building is under construction and will probably be ready for occupancy about August 1. The Canadian officials kindly consented to make the interior arrangement of the building conform to the ideas of the service here. When the building is completed the facilities for making the inspection will compare favorably with any of those contained at the first-class immigrant stations in the United States.

Much difficulty has been experienced with the hospital cases—in the first place to induce hospitals to accept them, and in the second place to detain them after they have been accepted. Lately we have not had so much trouble in this direction, and it is believed that as the matter is better understood the difficulty will disappear.

Respectfully,

VICTOR G. HEISER,
Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

Medical and surgical report of the immigrants ordered detained by the United States immigration service at Quebec, Canada, from May 20 to the ending of the fiscal year, June 30, 1901.

Diseases.	Examined.	Ordered to hospital.	Released by special board of inquiry.	Ordered deported by special board of inquiry.	Deported.	Disappeared.	Recovered and released.	Under observation.
Atrophy and shortening of right leg	1		1					
Caries of spine	1			1	1			
Chronic luxation of hip joint	1		1					
Deaf mute	1		1					
Favus	3	3		3		3		
Gonorrhœa	1	1					1	
Hernia	19		5	14	1	13		
Insanity	1	1		1	1			
Kyphosis	1		1					
Marasmus	1	1					1	
Measles	3	3					3	
Partial opacity of both cornea	1		1					
Pregnancy	3		2					1
Scarlet fever	2	2						2
Scoliosis	1		1					
Suppurating disease of hip joint	1			1		1		
Trachoma	9	9		6	2	4		3
Weak mind	1	1		1	1			
Total	51	21	13	27	6	21	5	6

EMIGRATION INSPECTION AT FOREIGN PORTS.

LIVERPOOL, ENGLAND.

Acting upon the recommendation of the Commissioner-General of Immigration, and in accordance with the written request of the agents of the Allan Line, Dominion Line, and Beaver Line of steamships, which ply between Liverpool and Canadian ports, a medical officer of

the Marine-Hospital Service was stationed in Liverpool for the purpose of inspecting all emigrants leaving Liverpool for Canadian ports, whether ultimately destined to the United States or not.

INSTRUCTIONS SENT TO THE MEDICAL OFFICER ON DUTY AT LIVERPOOL BY THE COMMISSIONER-GENERAL OF IMMIGRATION.

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER-GENERAL OF IMMIGRATION,
Washington, December 22, 1890.

Assistant Surgeon JOHN F. ANDERSON,
U. S. Marine-Hospital Service, United States Consulate, Liverpool, England.

SIR: I have to inclose herewith copy of a letter of the 23d ultimo from this Bureau, requesting that a medical officer of the Marine-Hospital Service be detailed to Liverpool for the purpose of examining all alien emigrants leaving that port for the Dominion of Canada, also a copy of a letter written by the representatives of the Allan Line, Dominion Line, and Beaver Line, in Montreal, respectively, and addressed to Hon. Peter R. Laird, United States commissioner of immigration, Quebec, promising cooperation with the medical representative of the United States Government if it be deemed desirable to detail such an officer for duty in Liverpool.

This request having been granted, you are hereby assigned to duty at the port of Liverpool as medical inspector of alien emigrants sailing from that port for ports in the Dominion of Canada, whether such alien emigrants are ultimately destined for the United States or not.

You being attached to the United States consulate in Liverpool, it will probably be necessary, and you are hereby authorized to submit recommendations regarding the rental of a suitable office at moderate terms for your official occupancy.

You should call upon the representatives of all steamship lines plying between Liverpool and ports of Canada, explain the nature of your instructions to them, and learn whether they will afford you proper facilities for carrying out your duties.

While the emigrants are to be examined by the ships' surgeons and the medical representative of the British Board of Trade, this should not influence you in any manner in your official decision regarding any case which comes before you. You may use your judgment as to whether or not your examination will be [illegible] with that of the ships' surgeons and the surgeons representing the British Board of Trade, or should be conducted separately.

It will be your duty to designate to the steamship companies such alien emigrants as, in your opinion, be deemed admissible to the United States under the general law and immigration laws and regulations of the United States, and to have [illegible] authority to forward such persons taking passage on other vessels [illegible] as aliens by reports.

With each vessel departing from Liverpool for Canada you should transmit to the United States commissioner of immigration at the port of arrival of the vessel [illegible] whom you have designated as probably [illegible] country as aliens [illegible].

This letter should also show which of said emigrants have been [illegible] passage by the steamship company and which, if any, have been [illegible]. You are directed to transmit a weekly report of all transactions to the Marine-Hospital Bureau, as has been the custom heretofore. In the event that any [illegible] arise which would tend to diminish the efficiency of your report [illegible] make immediate detailed report thereof, submitting your recommendations [illegible].

Inasmuch as this inspection service is [illegible] and is not contemplated in the acts of Congress approved March [illegible] March 1, 1891 imposing the duty of medical inspection of [illegible] ports of the United States upon medical officers of the Marine-Hospital Service, [illegible] and allowances and the necessary expenses incident to the [illegible] from the immigration fund. You will [illegible] the Treasury Department [illegible].

Respectfully,

[illegible]

Approved:
H. A. TAYLOR, Assistant Secretary.

REPORT OF TRANSACTIONS AT THE PORT OF LIVERPOOL.

By Asst. Surg. JOHN F. ANDERSON.

LIVERPOOL, ENGLAND, *August 14, 1901.*

SIR: I have the honor, in obedience to Bureau letter, July 20, 1901, to make the following report of the transactions at this port from my arrival here, September 7, 1900, to and including June 30, 1901.

As my work here has been under two distinct sets of orders, I think it best to so divide the report. The first period is embraced under orders which were strictly for quarantine purposes on account of plague in Glasgow. The second period covers the time from January 15, 1901, and on, during which I was only concerned with the examination of passengers for Canadian ports under instructions from the Immigration Bureau.

* * * * * * *

PERIOD OF INSPECTION OF PASSENGERS FOR CANADIAN PORTS.

I received orders from the Bureau on January 15, 1901, detaching me from the United States consulates in London and Liverpool and assigning me to the Immigration Bureau for duty in Liverpool. On the same date I received instructions from the Commissioner-General of Immigration to call on the different Canadian passenger lines and arrange for the inspection of passengers by their lines. At that time there were three lines carrying passengers direct to Canada, viz, the Dominion, Allan, and Beaver. I called on the managers of the different lines and explained my instructions and wishes and requested to know when I should begin work. The Allan Line said at once; the Dominion and Beaver people said they would write me next day. After waiting one week I wrote them asking to know their decision; they then wrote saying that I could begin at once. I will here say that the Dominion line soon after discontinued their Canadian service, and so I will not consider them further. The Allan line readily promised me every assistance, a promise that they have kept to the best of their ability. The Beaver people made the same promise, and in fact have made it many times, but have often forgotten to keep it. The Beaver people said they would try it for a while but did not think they wanted it, as they could not see the necessity, since their passengers were inspected on the continent when booked, again in Liverpool at the boarding house, then by the ship surgeon, and finally by the board of trade.

The board of trade in an official letter refused to allow me to inspect Canadian passengers at the time of their examination and added that they thought it rather impertinent for a United States official to inspect passengers by a British ship from one part of the British Empire to another. This difficulty was avoided by inspecting the passengers before embarkation. But by inspecting the passengers before the board of trade examination a large loophole was left for putting persons aboard whom I had not inspected, a thing that has happened on the Beaver boats often, and I believe still occurs. The Beaver people have absolutely refused to be bound by any count I may make, as they claim the right to allow passengers to embark up to the last minute. Several attempts were made by them to put passengers aboard whom I had rejected. I caught them three times, but am sure it occurred many times without my knowledge.

The different companies agreed to accept my decision in regard to the rejection of persons who were presumably intended for the United States if suffering from trachoma and favus but from no other diseases, hence my rejections have been practically for these two diseases alone. On several occasions I have rejected persons who told me that they had previously been rejected in New York or Naples.

The Canadian Pacific Railroad manager in Liverpool called to see me soon after I began work and volunteered any assistance possible. I asked him how he was interested in the matter and he replied, to prevent, if possible, their trains being detained on the frontier for inspection of immigrants. I thanked him and told him the Beaver people did not seem to want to act fair. He called on the Beaver people and told them that if they did not render me every assistance possible in the inspection he would refuse to move their passengers on arrival in Canada, a threat that has helped matters some. I will say here that Beaver people are quite down on me and the inspection, and blame the great decrease in steerage Italian passengers directly to the return of rejected persons to Italy. Ships that carried 800 to 1,000 passengers at the corresponding period of last year now have only from 350 to 500; this in spite of the fact that the other lines are carrying more than last year at the same time.

[illegible] in relation to the above is that when I began the inspection in [illegible] per cent of the steerage passengers were booked direct to United States [illegible] about 40 per cent. Persons booked to the United States are refused [illegible] passage if rejected; persons booked to Canadian points are allowed passage even if [illegible]. The Beaver Line is not in the passenger conference and carries steerage [illegible] for about £4 from Liverpool to Canada, which is about 20 shillings less than the regular rate, consequently the class of passengers is very poor. The Allan [illegible] are the usual good class of Liverpool emigrants.

[illegible] first inspection of Canadian passengers on February 5. [illegible] I have given the two lines separately in order to [illegible] in the class of passengers.

[illegible]

[illegible] rejected	18
Passengers rejected	[illegible]
[illegible] allowed rejection	10
[illegible]	
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	1
[illegible] of passengers rejected	[illegible]
[illegible] of rejected persons allowed [illegible]	10

Beaver Line.

[illegible] rejected	[illegible]
Passengers rejected	[illegible]
[illegible] allowed rejection	[illegible]
[illegible]	
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible] of passengers rejected	[illegible]
[illegible] of rejected persons allowed [illegible]	[illegible]

Summary.

[illegible] of passengers rejected	[illegible]
[illegible] rejected	[illegible]
[illegible] of persons allowed rejection	[illegible]

[illegible]

NAPLES, ITALY.

A medical officer of the Marine-Hospital Service has remained on duty in the office of the United States consul at Naples during the fiscal year 1901. A report of the transactions at Naples follows:

Report of Transactions at the Port of Naples, Italy, September 15, 1900, to June 30, 1901, Inclusive.

By P. A. Surg. J. M. Eager.

Marine-Hospital Service,
Naples, Italy, August 9, 1901.

Sir: I have the honor to submit the following report of the transactions of the Service at this port for the period from September 15, 1900, to June 30, 1901, inclusive:

Statistics of the Service at Naples.

Month.	Vessels inspected.	Baggage inspected.		Pieces of baggage disinfected.	Emigrants inspected.
		Large pieces.	Small pieces.		
1900.					
September 15—30	6	866	3,402	603	3,006
October	14	1,973	7,189	1,391	6,223
November	13	1,768	7,037	1,695	7,499
December	11	892	4,454	863	3,603
1901.					
January	15	1,086	7,435	1,700	5,449
February	13	811	9,944	1,957	8,700
March	17	1,358	16,798	3,108	12,362
April	22	2,593	29,180	5,074	21,615
May	23	2,473	12,718	15,131	18,035
June	20	1,687	.....	13,552	9,576
Total	154	15,507	98,147	45,074	96,368

Number of rejections advised for the following causes:

Trachoma	788
Favus	125
Hernia	320
Senility	69
Ringworm	21
Smallpox	7
Measles	12
All other causes	607
Total	1,949

Proportion of rejections advised to emigrants inspected, nearly 2 per cent.

INSPECTION AT NAPLES.

The inspection at Naples serves a double purpose: First, an examination of vessels, their cargo, passengers, crew, personal effects of same, food and water supply, together with an inquiry into the sanitary history of the vessels as a preliminary to granting the bill of health which is signed conjointly by the United States consul and the medical officer on duty here; secondly, an examination of emigrants with a view to the detection of diseases or deformities that render persons inadmissible into the United States under the immigration laws. Except in the case of persons suffering from or exposed to contagious disease, the powers of the inspector at Naples are advisory only.

In making the examination of emigrants who present themselves for embarkment, diseases are considered, therefore, under two categories: First, those of which the quarantine laws take cognizance, namely, the so-called quarantinable diseases and measles, scarlet fever, and diphtheria; and, secondly, those for which intending emi-

[illegible] excluded under the immigration laws. These latter conditions are divided [illegible] groups [illegible] diseases, dangerous contagious diseases, and diseases [illegible] which are likely to render the person a public charge.

PATHOLOGY OF THE ITALIAN EMIGRANT.

[illegible]—[illegible] mainly continues to be the most important of all diseases for [illegible] emigrants is encountered at Naples. The fact is not remark[illegible] the extent of the distribution of trachoma in southern Italy. The [illegible], Professor [illegible], has arrived at the conclusion, [illegible] experience, that at least 75 per cent of the cases that present [illegible] trachoma [illegible] alone. In Sicily, especially [illegible] Palermo, Girgenti, Catania and Messina, the disease is practically [illegible] the extent of the prevalence [illegible] as a cause of total blindness in [illegible] 12 per cent. As a cause of partial blindness [illegible]

[illegible] Hippocrates [illegible] appears that trachoma was [illegible] Italy [illegible] the soldiers of Napoleon [illegible] Egypt [illegible]

[illegible] stages [illegible] the examination of steerage [illegible] Naples [illegible] patches and [illegible]

[illegible] When [illegible]

[illegible] at Naples [illegible]

[illegible]

chronic nephritis, valvular disease of the heart, and other grave organic affections that would in all probability render the sufferer a public charge.

Among the many cases of anæmia that are examined here, I have been watching for cases of anchylostomiasis. This disease is said to be very prevalent in certain provinces of Italy, and it has been said that its spread to many parts of Europe has probably been due to the employment of Italian laborers. But I have as yet found no case of anæmia that could be attributed to this cause.

Geroderma dystrophicum.—Among the interesting cases that have presented themselves at the examination have been several examples of geroderma dystrophicum, a curious disease described and named about two years ago by Dr. Gaetano Rummo, of the University of Palermo. At the first visit on the line of emigrants, these men are readily noticed, owing to the yellow, anæmic, wrinkled skin, the beardless faces, the high-pitched feminine voice, and the general manner and carriage of an old woman. In the cases I have seen here, examination has shown an undeveloped condition of the genitals, absence of pubic hair, with abdomen and pelvis of the female type. This disease, though common in Italy, is not peculiar to the country. I have seen several cases in the United States, though I did not recognize them as pathological entities at the time. For example, there was a case, exactly corresponding to Rummo's description, at the United States Marine Hospital, Cincinnati, during the winter of 1899–1900.

VACCINATION.

During the epidemic of smallpox that prevailed here in the latter part of the fiscal year, all emigrants were vaccinated. When this was done ashore, the procedure was under my supervision. My recommendation was accepted as to the source and quality of the vaccine virus and the manner of performing the operation. Each inspection card was stamped with the official seal, or otherwise distinctively marked, as soon as the holder was vaccinated.

INSPECTION OF EMIGRANT BOARDING HOUSES.

Emigrants, while awaiting embarkment at Naples, are lodged in boarding houses known as "locande." These houses are under municipal control, but are generally owned and operated by subagents of the steamship companies. During the prevalence of smallpox these houses have been inspected from time to time by the Marine-Hospital Service.

INSPECTION OF PASSENGERS.

The inspection of passengers is made at the Capitanaria di Porto, a large building belonging to the Italian navy and under the command of the captain of the port. The visit is made in connection with that of the Italian commission, of which the medical officer of the port, the captain of the port, and the chief of police are members.

Intending emigrants, provided with their passport and the United States inspection card, are mustered and formed into a line by "carabinieri reali," soldiers especially detailed for this duty. The line of passengers halts some 20 feet from the place where the medical officer of the Marine-Hospital Service takes his stand. The space of 20 feet is crossed by the passengers singly. They are then examined, special attention being given to the ordinary causes of rejection. The medical officer of the vessel for which passengers are being examined is present at the inspection. Cases that are certainly inadmissible are rejected once and for all at the first visit; cases in which there is a reasonable doubt are detained for the second visit. Persons who have been stopped at the first visit are carefully scrutinized at the second, and, if deemed necessary, are taken into a private room and submitted to a thorough medical inquiry. Following the medical visit the emigrants have their inspection cards stamped by an employee of the service. After being inspected by the Italian commission, they enter an inclosure, where they claim their inspected or disinfected baggage, and are then permitted to go aboard ship.

INSPECTION AND DISINFECTION OF BAGGAGE.

Intending emigrants, before presenting themselves for the medical visit, leave their baggage to be inspected. Inquiry is made as to the nature and source of these effects, and if acceptable the baggage is marked with the regulation inspection label. Otherwise it is transferred in boats or on barges to the Italian disinfecting station on the mole, about a mile distant from the "Capitanaria." Here disinfection is done by

[illegible] and dipping [illegible] solutions, following the direction of the United States quarantine regulations [illegible] [illegible]ected baggage is marked with the official label and allowed to be taken ashore [illegible] [illegible] only special measures that can be taken to prevent the contamination of baggage en route to destination is the assignment to places unoccupied by emigrants of all "not wanted" baggage. In addition the ship's medical officer is empowered with the necessity of reinfection by approved methods of all baggage that is exposed to infection by any quarantinable disease that may break out aboard.

Respectfully,

J. M. [illegible],
Passed Assistant Surgeon, Marine Hospital Service.

The Surgeon-General U. S. Marine Hospital Service.

Supplemental report.

MARINE-HOSPITAL SERVICE,
Naples, Italy, September [illegible], 1901.

Sir: As directed in Bureau letter dated July 29, 1901, I have the honor to make the following report of the transactions of the Service at this port covering the period from July 1, 1901, to September 15, 1901, inclusive, the same being supplemental to the report transmitted under date of August 9, 1901.

Statistics of the Service at Naples.

Month	[illegible]	[illegible]	[illegible]	[illegible]
1901				
July	[illegible]	[illegible]	[illegible]	[illegible]
August	[illegible]	[illegible]	[illegible]	[illegible]
September 1 to 15	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]

Number of reputations advised for the following causes:

Typhoid	[illegible]
Plague	[illegible]
Cholera	[illegible]
Malaria	[illegible]
Dysentery	[illegible]
Diphtheria	[illegible]
Measles	[illegible]
All other causes	[illegible]
Total	[illegible]

Proportion of reputations advised [illegible]

Respectfully,

[illegible]
Passed Assistant Surgeon, Marine Hospital Service.

The Surgeon-General U. S. Marine Hospital Service.

DIVISION OF DOMESTIC QUARANTINE.

REPORT OF THE DIVISION OF DOMESTIC QUARANTINE.

J. H. White,

Surgeon, U. S. Marine-Hospital Service, in charge.

Operations at Domestic National Quarantines of the United States during the Fiscal Year.

During the year there were 4,729 vessels inspected and 366 vessels disinfected at national quarantine stations. At the close of the fiscal year the Marine-Hospital Service owned 13 complete maritime quarantine stations and controlled 21 stations where inspection of incoming vessels is conducted by officers of the Service.

Subjoined is a table of transactions for the Service as a whole, followed by the individual reports of the officers in command of each station.

Name of station	Vessels		Number inspected	
	Inspected	Disinfected	Crew	Passengers
[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]		

Reports of Transactions.

REEDY ISLAND QUARANTINE. POST-OFFICE ADDRESS, VIA PORT PENN, DEL.

[illegible]

[illegible]

Sir: I have the honor to submit the [illegible] of this station for the fiscal year ending June [illegible]:

Vessels inspected and passed	[illegible]
Vessels quarantined and passed	[illegible]
Vessels disinfected	[illegible]
Number members in crews inspected	[illegible]
Number passengers inspected	[illegible]

Respectfully,

[illegible]

Surgeon-General Marine-Hospital Service.

The Surgeon-General Marine-Hospital Service.

ELAWARE BREAKWATER QUARANTINE. POST-OFFICE ADDRESS, VIA LEWES, DEL.

port of the medical officer in command, Asst. Surg. C. H. LAVINDER. Assumed command under official orders of March 8, 1901.]

DELAWARE BREAKWATER, DELAWARE, *July 15, 1901.*

SIR: I submit below a summary of the operations at this station during the fiscal ear ending June 30, 1901:

As will be seen, there is some decrease in the number of vessels boarded during he year as compared with that of last year. The reason for this decrease lies in the act that the demand for tonnage occasioned by the continuance of the South African war takes many vessels away that would otherwise come here in ballast for orders, and also owing to the fact that vessels are now boarded at Reedy Island until 10 o'clock, thus allowing vessels which came here in the afternoon for boarding to now reach Reedy Island and be boarded there before 10 p. m.

Vessels boarded and inspected	140
Vessels detained for completion of period	0
Vessels remanded for disinfection	0
Persons detained in quarantine	23

Respectfully,

C. H. LAVINDER,
Assistant Surgeon, Marine-Hospital Service, in Command.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

ALEXANDRIA, VA., INSPECTION STATION.

[Acting Asst. Surg. ARTHUR SNOWDEN in charge.]

ALEXANDRIA, VA., *August 3, 1901.*

SIR: In reply to your letter asking for a summary of the number of vessels inspected and disinfected at this station during the year ending June 30, 1901, I have the honor to state there were 9 vessels inspected and none disinfected.

Respectfully,

ARTHUR SNOWDEN,
Acting Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

CAPE CHARLES QUARANTINE. POST-OFFICE ADDRESS, FORT MONROE, VA.

[Boarding and disinfection ship, *Jamestown*, Hampton Roads; hospital, and detention barracks, Fishermans Island, off Cape Charles, Virginia.]

[Report of the medical officer in command, P. A. Surg. J. A. NYDEGGER. Assumed command under official orders of March 11, 1901; Asst. Surg. C. W. WILLE in temporary command.]

CAPE CHARLES QUARANTINE,
Fort Monroe, Va., July 25, 1901.

SIR: Referring to Bureau letter (WPW-AMW) dated July 24, 1901, I have th honor to transmit herewith the following report of sanitary transactions at th station for the year ended June 30, 1901.

Vessels inspected and passed	
Vessels disinfected	
Total	

Respectfully,

C. W. WILLE,
Assistant Surgeon, M. H. S., in Temporary Commar

SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

WASHINGTON, N. C., INSPECTION STATION.

[Acting Assistant Surgeon John C. Bohman in charge.]

Washington, N. C., August 3, 1901.

SIR: In reply to letter dated August 2, asking for summary of vessels disinfected and inspected at this station for year ending June 30, 1901, I beg leave to state that there have been no transactions at this station during period named.

Respectfully,

JOHN C. BOHMAN,
Acting Assistant Surgeon.

The Surgeon-General Marine-Hospital Service.

NEWBERN, N. C., INSPECTION STATION.

[Acting Assistant Surgeon E. S. Primrose in charge.]

Quarantine Station,
Newbern, N. C., August [illegible], 1901.

SIR: In reply to circular letter of Surgeon White, of August 2, instant, I have to state there have been no vessels boarded nor disinfected during year ending June 30, 1901. I did board several vessels that stopped at quarantine but it was on account of the same signals being mistaken.

Very respectfully,

E. S. PRIMROSE,
Acting Assistant Surgeon, M. H. S.

The Surgeon-General Marine-Hospital Service.

CAPE FEAR QUARANTINE STATION, POST-OFFICE ADDRESS, SOUTH PORT, N. C.

[Report of the medical officer in command, Assistant Surgeon [illegible], M. H. S., [illegible] Station, Cape Fear, N. C., for the fiscal year ending June 30, 1901.]

Cape Fear Quarantine Station,
Southport, N. C., [illegible].

SIR: I have the honor to report the following sanitary transactions of this station during the fiscal year ending June 30, 1901:

There arrived at this station during the year [illegible] vessels and [illegible] steamers, making a total of [illegible] vessels. Of these number [illegible] were inspected and passed [illegible] and passed; and [illegible] disinfected and [illegible] which were [illegible] from infected ports and [illegible] from ports infected with yellow fever.

Respectfully,

[illegible],
Assistant Surgeon, M. H. S.

The Surgeon-General Marine-Hospital Service.

SAVANNAH QUARANTINE, SAVANNAH, GA.

[Report of the medical officer in command, Assistant Surgeon [illegible], M. H. S., [illegible] Station, Savannah, Ga., for the fiscal year ending June 30, 1901.]

[illegible] Quarantine Station,
Savannah, Ga., [illegible].

SIR: I have the honor to submit the following report of sanitary transactions of this station for the fiscal year ending June 30, 1901:

Three hundred and ninety vessels arrived at this station during the year, [illegible] were boarded and inspected. [illegible] of these passed [illegible] were detained for disinfection. [illegible] of these were inspected and passed and [illegible] were inspected and passed [illegible] the latter sailed for other ports and [illegible] were inspected and passed [illegible]

One vessel, from Campeche, was allowed to take water and provisions in quarantine. Thirteen vessels were held for instructions from the Bureau; 10 of these were released and 3 disinfected. Eight vessels were given pratique by virtue of having been disinfected at their ports of departure; 3 were disinfected at Baltimore, 3 at Cuban ports, 1 at Rio, and 1 at Honolulu. Three vessels were held from one to twenty-four hours in order that specimens of blood and sputum from cases of sickness aboard might be collected and examined.

Nationality and class of vessels boarded during year.

Class.	English.	Swedish.	Norwegian.	Danish.	Portuguese.	Russian.	Italian.	Belgian.	German.	Austrian.	Spanish.	American.	Total.
Steamships	113		7	3			2	13	7	4	5	1	155
Ships	1		6				3		3			1	14
Barks	4	12	80	1	1	3	36		12	3	2	4	158
Barkentines	7						1				1		9
Brigs							1		1				2
Brigantines										2		1	3
Schooners	11									1		27	39
Yachts	1											2	3
Tugs												4	4
Sloops												1	1
River steamers												2	2
Total	137	12	93	4	1	3	43	13	23	10	8	43	390

Nationality and class of vessels held for disinfection.

Class.	British.	Swedish.	Norwegian.	Italian.	Austrian.	American.	Total.
Steamships	5						5
Ships	1						1
Barks	2	3	8	1	1	2	17
Barkentines	1						1
Brigantines					2		2
Schooners	5					16	21
Tugs						1	1
Sloops						1	1
River steamers						1	1
Total	14	3	8	1	3	21	50

The average period of detention for vessels disinfected was 7-14/50 days; this apparently short detention period is partly explained by the fact that a good many vessels were stopped, during the open season, simply for discharge of ballast and disinfection. Three thousand five hundred and fifty tons of sand and stone ballast were discharged during the year.

Countries from which vessels held under quarantine restrictions cleared.

Brazil	10	Martinique	1
Cuba	16	Yucatan	3
United States of Colombia	1	United States	7
Costa Rica	1	Wales	1
Porto Rico	2	Scotland	1
Guadeloupe	4	South Africa	2
Guiana	2	Argentina	3
Barbados	1		

Nature of ballast brought by foreign vessels.

Sand	16	Rubbish	1
Rock	4	Light	19
Sand and stone	1	Water	5

Nature of cargoes brought by foreign vessels.

Coal [illegible]	1
Vegetables	1
Cotton seed	2

Three suspected and 2 smallpox infected vessels remained at this station from Savannah by the surgeon in charge at that port, were treated during the year. In connection with these, 28 suspects were detained fourteen days for observation. One of the suspects developed the disease but as he was placed with a gang that had been greatly exposed and had therefore been isolated with the original case, the others were not exposed to a second focus of infection. The cases were isolated and treated at a camp established at the old quarantine station, about half a mile from the station, and the suspects were held under observation at the station proper.

W. J. [illegible]
[illegible] M. H. S.

The Surgeon-General, Marine-Hospital Service.

SOUTH ATLANTIC QUARANTINE; POST-OFFICE ADDRESS, INVERNESS, GA.; TELEGRAPHIC ADDRESS, VIA DARIEN, GA.

[illegible]

Sir: I have the honor to report [illegible] during the fiscal year ending June [illegible].

During the fiscal year [illegible] [illegible] with yellow fever [illegible] [illegible] with yellow fever [illegible] [illegible] with known or feared [illegible] [illegible] quarantinable disease and were detained [illegible] and observation.

The nationality and tonnage [illegible] British 5, tonnage [illegible] British 5, tonnage [illegible] steamships.

The countries and ports of departure [illegible] from south, as follows: Great Britain [illegible] tonnage [illegible] Netherlands [illegible] France 1, tonnage [illegible] Belgium 2, tonnage [illegible]

The vessels from each of the [illegible] Japan [illegible] Bermudas [illegible]

The tonnage and nationality [illegible] tonnage [illegible] Norwegian [illegible] steamships, tonnage [illegible] tonnage [illegible] Italian [illegible]

A table showing [illegible] removed, [illegible] deaths [illegible] stations remained or remanded [illegible]

This table shows that there [illegible] Bermudas and 6 vessels from [illegible]

One vessel with a case of typhoid [illegible] Brazil, arrived with history [illegible]

DIVISION OF DOMESTIC QUARANTINE

REPORT OF THE DIVISION OF DOMESTIC QUARANTINE.

J. H. WHITE,

Surgeon, U. S. Marine-Hospital Service, in charge.

OPERATIONS AT DOMESTIC NATIONAL QUARANTINES OF THE UNITED STATES DURING THE FISCAL YEAR.

During the year there were 4,729 vessels inspected and 366 vessels disinfected at national quarantine stations. At the close of the fiscal year the Marine-Hospital Service owned 13 complete maritime quarantine stations and controlled 21 stations where inspection of incoming vessels is conducted by officers of the Service.

Subjoined is a table of transactions for the Service as a whole, followed by the individual reports of the officers in command of each station.

Name of station.	Vessels.		Number inspected.	
	Inspected.	Disinfected.	Crews.	Passengers.
Reedy Island	[illegible]		[illegible]	[illegible]
Delaware Breakwater	[illegible]			
Cape Charles	[illegible]	[illegible]		
Cape Fear	[illegible]			
Savannah	[illegible]	[illegible]	[illegible]	[illegible]
South Atlantic	[illegible]	[illegible]		
Brunswick	[illegible]	[illegible]		
Gulf	[illegible]	[illegible]		
San Diego	[illegible]	[illegible]		
San Francisco	[illegible]	[illegible]	[illegible]	[illegible]
Columbia River	[illegible]			
Port Townsend [illegible]	[illegible]		[illegible]	[illegible]
Pascagoula, Miss.				
[illegible], Va.				
Eureka, Cal.				
San Pedro, Cal.	[illegible]			
Los Angeles, Cal.	[illegible]			
Total [illegible]	[illegible]	[illegible]		

REPORTS OF TRANSACTIONS.

REEDY ISLAND QUARANTINE—POST-OFFICE ADDRESS, VIA PORT PENN, DEL.

Report of the medical officer [illegible]

[illegible]

SIR: I have the honor to submit [illegible] of this station for the fiscal year ending [illegible].

Vessels inspected and passed	[illegible]
Vessels spoken and passed	[illegible]
Vessels disinfected	[illegible]
Number members in crews inspected	[illegible]
Number passengers inspected	[illegible]

Respectfully,

[illegible]

[illegible] Marine-Hospital Service [illegible]

The SURGEON-GENERAL, MARINE-HOSPITAL SERVICE.

DELAWARE BREAKWATER [illegible] LEWES, DE[illegible]

[Report of the medical officer in command, Asst. Surg. C. H. LAVINDER. Assum[illegible] official orders of March 8, 1901.]

DELAWARE BREAKWATER, DELAWARE, *July 15, 1901.*

SIR: I submit below a summary of the operations at this station during the fiscal year ending June 30, 1901:

As will be seen, there is some decrease in the number of vessels boarded during the year as compared with that of last year. The reason for this decrease lies in the fact that the demand for tonnage occasioned by the continuance of the South African war takes many vessels away that would otherwise come here in ballast for orders, and also owing to the fact that vessels are now boarded at Reedy Island until 10 o'clock, thus allowing vessels which came here in the afternoon for boarding to now reach Reedy Island and be boarded there before 10 p. m.

Vessels boarded and inspected	140
Vessels detained for completion of period	0
Vessels remanded for disinfection	0
Persons detained in quarantine	23

Respectfully,

C. H. LAVINDER,
Assistant Surgeon, Marine-Hospital Service, in Command.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

ALEXANDRIA, VA., INSPECTION STATION.

[Acting Asst. Surg. ARTHUR SNOWDEN in charge.]

ALEXANDRIA, VA., *August 3, 1901.*

SIR: In reply to your letter asking for a summary of the number of vessels inspected and disinfected at this station during the year ending June 30, 1901, I have the honor to state there were 9 vessels inspected and none disinfected.

Respectfully,

ARTHUR SNOWDEN,
Acting Assistant Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

CAPE CHARLES QUARANTINE. POST-OFFICE ADDRESS, FORT MONROE, [illegible]

[Boarding and disinfection ship, *Jamestown*, Hampton Roads; hospital, and detention barr[illegible] Fishermans Island, off Cape Charles, Virginia.]

[Report of the medical officer in command, P. A. Surg. J. A. NYDEGGER. Assumed command official orders of March 11, 1901; Asst. Surg. C. W. WILLE in temporary command.]

CAPE CHARLES QUARANTINE,
Fort Monroe, Va., July 25, [illegible]

SIR: Referring to Bureau letter (WPW-AMW) dated July 24, 1901, I h[illegible] honor to transmit herewith the following report of sanitary transactions [illegible] station for the year ended June 30, 1901.

Vessels inspected and passed	[illegible]
Vessels disinfected	[illegible]

C. W. W[illegible]
[illegible] Surgeon, M. H. S., in Temporary [illegible]

WASHINGTON, N. C., INSPECTION STATION.

[Acting Assistant Surgeon John C. Bohman in charge.]

WASHINGTON, N. C., August 3, 1901.

SIR: In reply to letter dated August 2, asking for summary of vessels disinfected and inspected at this station for year ending June 30, 1901, I beg leave to state that there have been no transactions at the station during period named.

Respectfully,

JOHN C. BOHMAN,
Acting Assistant Surgeon.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

NEWBERN, N. C., INSPECTION STATION.

[Acting Assistant Surgeon R. S. Parmele in charge.]

QUARANTINE STATION,
Newbern, N. C., August [illegible]

SIR: In reply to circular letter of Surgeon White, of August 2, instant, I have the honor to state there have been no vessels boarded nor disinfected during year ending June 30, 1901. I did board several vessels that stopped at quarantine but it was on account of the yellow signals being mistaken.

Very respectfully,

R. S. PARMELE,
Acting Assistant Surgeon, M. H. S.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

CAPE FEAR QUARANTINE STATION, POST-OFFICE ADDRESS, SOUTH PORT, N. C.

[Report of the medical officer in command, [illegible]]

CAPE FEAR QUARANTINE STATION,
South Port, N. C., [illegible]

SIR: I have the honor to report the following [illegible] during the fiscal year ending June 30, 1901:

There arrived at this station during the year [illegible] vessels, making a total of [illegible] vessels [illegible] and passed and [illegible] disinfected and [illegible] inbound ports and [illegible] from ports infected with yellow fever.

Respectfully,

[illegible],
Assistant Surgeon, M. H. S.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

SAVANNAH QUARANTINE, SAVANNAH, GA.

[Report of the medical officer in command, [illegible]]

[illegible]

SIR: I have the honor to submit the following [illegible] station for the fiscal year ending June 30, 1901:

Three hundred and ninety [illegible] inspected [illegible] passed [illegible] were detained for disinfection. [illegible] 30 of them were inspected and passed and [illegible] the latter sailed for other ports and [illegible] inspected and passed [illegible]

One vessel, from Campeche, was allowed to take water and provisions in quarantine. Thirteen vessels were held for instructions from the Bureau; 10 of these were released and 3 disinfected. Eight vessels were given pratique by virtue of having been disinfected at their ports of departure; 3 were disinfected at Baltimore, 3 at Cuban ports, 1 at Rio, and 1 at Honolulu. Three vessels were held from one to twenty-four hours in order that specimens of blood and sputum from cases of sickness aboard might be collected and examined.

Nationality and class of vessels boarded during year.

Class.	English.	Swedish.	Norwegian.	Danish.	Portuguese.	Russian.	Italian.	Belgian.	German.	Austrian.	Spanish.	American.	Total.
Steamships	113		7	3			2	13	7	4	5	1	155
Ships	1		6				3		3			1	14
Barks	4	12	80	1	1	3	36		12	3	2	4	158
Barkentines	7						1				1		9
Brigs							1		1				2
Brigantines										2		1	3
Schooners	11									1		27	39
Yachts	1											2	3
Tugs												4	4
Sloops												1	1
River steamers												2	2
Total	137	12	93	4	1	3	43	13	23	10	8	43	390

Nationality and class of vessels held for disinfection.

Class.	British.	Swedish.	Norwegian.	Italian.	Austrian.	American.	Total.
Steamships	5						5
Ships	1						1
Barks	2	3	8	1	1	2	17
Barkentines	1						1
Brigantines					2		2
Schooners	5					16	21
Tugs						1	1
Sloops						1	1
River steamers						1	1
Total	14	3	8	1	3	21	50

The average period of detention for vessels disinfected was 7–14/50 days; this apparently short detention period is partly explained by the fact that a good many vessels were stopped, during the open season, simply for discharge of ballast and disinfection. Three thousand five hundred and fifty tons of sand and stone ballast were discharged during the year.

Countries from which vessels held under quarantine restrictions cleared.

Brazil	10	Martinique	1
Cuba	16	Yucatan	3
United States of Colombia	1	United States	7
Costa Rica	1	Wales	1
Porto Rico	2	Scotland	1
Guadeloupe	4	South Africa	2
Guiana	2	Argentina	3
Barbados	1		

quarantine functions to the Marine Hospital Service and leased their quarantine stations to this Service for a period of three years, at a nominal rental. The service, under the provisions of section 8 of the act of Congress approved February 15, 1893, undertook to operate these quarantines in like manner as the quarantine at Savannah, Ga., was accepted during the previous year.

One of the stations, that at Mullet Key, was purchased outright, under the act of Congress of June 6, [illegible], appropriating [illegible] to [illegible] quarantine stations at Mullet Key [illegible] at Key West in [illegible] the quarantine station at Dry Tortugas, which had been [illegible] the Navy as a coaling station.

[illegible] for the purchase of [illegible] of these stations, [illegible] the agreement [illegible] the State of Florida [illegible] appended [illegible] made to Congress [illegible] appropriation [illegible] to complete the purchase [illegible] of these stations [illegible] Key West, Mullet Key [illegible]

[illegible]

[illegible]

[illegible]

5. The United States Treasury Department, through the U. S. Marine-Hospital Service, will continue, with the approval of the Civil Service Commission, the employment of the sanitary inspectors and employees now connected with the stations, unless there be objections to their efficiency or competency.

6. In the event of the acceptance of this agreement, the Treasury Department (U. S. Marine-Hospital Service) will recommend to Congress appropriations for the immediate improvement of the stations, to secure the most expeditious and thorough service at all points.

7. The United States Treasury Department (Marine-Hospital Service) will appoint the State health officer of Florida a sanitary inspector of the Marine-Hospital Service, with advisory and recommendatory functions in the management and operation of the quarantine and inspection stations thus leased or transferred, and will furnish, when and as often as may be deemed necessary, transportation for the purpose of inspecting said stations, and also making inventories and valuations of the various plants it is proposed to lease or transfer. The traveling expenses of the said sanitary inspector, when on quarantine duty directed by the Department (Marine-Hospital Service), will be paid upon duly rendered vouchers.

8. Congress having made an appropriation for the establishment of a quarantine station at Mullet Key, the United States Treasury Department will entertain a proposition to pay the State of Florida for the quarantine plant now at Mullet Key.

Washington, D. C., July 20, 1901.

Accepted.

L. J. GAGE, *Secretary of the Treasury.*

Accepted July 16, 1901.

W. S. JENNINGS, *Governor, and President B. I.,*
WM. H. REYNOLDS, *Comptroller,*
J. B. WHITFIELD, *State Treasurer,*
B. E. MCLIN, *Commissioner of Agriculture,*
W. B. LAMAR, *Attorney-General,*
Board of Commissioners of State Institutions.

Attest:

C. H. DICKINSON, *Secretary of the Board.*

Accepted.

E. M. HENDRY,
President State Board of Health of Florida.

Attest:

JOSEPH Y. PORTER,
[SEAL.] *Secretary State Board of Health of Florida, State Health Officer.*

[Extract of copy of minutes of meeting of the State board of health of Florida while in called session at Tallahassee, Fla., July 16, 1901.]

RESOLUTION ADOPTED BY THE STATE BOARD OF HEALTH OF FLORIDA WHILE IN CALLED SESSION AT TALLAHASSEE., FLA., JULY 16, 1901.

Resolved by the State board of health of Florida, That it hereby accepts, agrees to, and authorizes the sale of Mullet Key quarantine station, subject to the concurrence of the board of commissioners of State institutions of Florida.

Resolved, Second, That the board of commissioners of State institutions be advised of the action of the board of health in the premises, and that the board of commissioners of State institutions be, and are hereby, requested to join in the transfer or conveyance of the title to said plant and property to the Treasury Department, to the end that these negotiations may be completed without delay, and that a copy of these resolutions be furnished to the board of commissioners of State institutions with the earnest request that said board act favorably thereon as early as possible.

Resolved further, That Hon. E. M. Hendry, president State board of health, be, and he is hereby, appointed as representative on the part of the State board of health, to appraise said quarantine plant at Mullet Key, with the representative of the United States Treasury Department (U. S. Marine-Hospital Service), and to do and perform all necessary acts in accordance herewith, in order to sell and transfer said plant to the Treasury Department on behalf of the State board of health of Florida, as herein contemplated; and be it further

Resolved, That upon the completion and execution of bill of sale of Mullet Key station, that the State board of health of Florida accepts and agrees to enter into the wing agreement subject to approval and concurrence of the board of commissioners

[illegible]

[illegible]

[illegible]

[illegible]

Texas-Mexican [illegible]

[illegible]

:low is a summary of the transactions on this frontier and the vidual reports of the officers in charge at the stations named:

Summary of transactions, Texas-Mexican border.

	Trains inspected.	Persons inspected.	Persons detained for observation.	Sent back to Mexico.	Vaccinated.
gle Pass	384	15,230	18	425	98
Paso		10,414	33		
aredo	730	51,430	135		
Total		77,074	186		

EL PASO, TEX.

[Report of transactions at El Paso border quarantine, by Acting Asst. Surg. E. ALEXANDER.]

EL PASO, TEX., *August 29, 1901.*

SIR: I have the honor to submit herewith a summary of transactions at this station from July 1, 1900, to June 30, 1901:

Inspection Mexican Central Railway passengers	8,018
Special inspection of passengers from City of Mexico on account of typhus fever prevailing there	270
Inspection of Rio Grande and Pacific passengers	1,519
Inspection of excursion parties from Mexico	328
Inspection of private cars from Mexico	70
Inspection of party, Mexican contingent to Pan-American Buffalo Exhibition	131
Inspection of various freight crews	78
Inspection of "Certificate of death" of bodies contained in hermetically sealed coffins shipped into United States	7
Inspection of different fruits imported from Mexico; detained in all, from infected places and on account of smallpox, three, five, and twenty days	29
Disinfection of trunks, clothing, household goods, and the belongings of immigrants	1,516
Disinfection of soiled linen imported for laundry work	19,903
Disinfection of Pullman linen from Mexico	96,046
Disinfection of 16 importations of cattle hides	5,601
Disinfection of carload of bones	4
Vaccination of immigrants, their children, and other destitutes	382

April last I was informed by passengers and Mexican Central officials that there was at that time a rather large amount of sickness in the City of Mexico and a very high death rate, and knowing that a system of sewerage was being put in and the ground torn up in every direction, I suspicioned typhus fever was prevailing there. This might be expected under the circumstances, and I commenced at once to examine passengers from the City of Mexico for the regularity of pulse and their normal temperature, which was only a precautionary measure and not a quarantine, as the American consul-general and some Mexican papers called it.

It gives me satisfaction to state that though smallpox has been prevalent in many localities in all parts of the United States, El Paso, Tex., and Juarez, Mexico, hav been almost free of the disease.

Ninety-eight per cent of all the population in both cities are thoroughly vacc nated, which is certainly a very satisfactory proof of the value of vaccination. The have been a few sporadic cases of smallpox here, but they came from the lower pa of Texas and New Mexico. Such, fearing to be put in the smallpox hospital, ge erally run away and take refuge with some lower class of Mexican families, w have no more fear of smallpox than an American mother has of measles.

Most of such cases I have quarantined in Juarez and detained them twenty d before they were admitted into the United States.

Of late some of the American laity, and not a few of physicians, call small "Cuban itch." I have seen such cases, but always found every symptom of gen llpox. In my practice in this country I have found among cattlemen and bu

[illegible]

[illegible] Marine-Hospital Service.

EAGLE PASS, TEX.

[illegible]

EAGLE PASS, TEX.

[illegible]

QUARANTINE DECISIONS [illegible]

On December [illegible] San Francisco quarantine [illegible] pratique, no certificate [illegible]

they were not from plague or cholera infected districts. The consignees brought suit against the quarantine officer with a view to forcing the admission of these products. The case was continued from time to time, and was finally abandoned. In the meantime it seemed desirable to have definite information with regard to the relative danger of these food products, and experiments were made as to the viability of the the plague bacillus upon certain dried products, samples being furnished to the Bureau. From the report of the acting director of the hygienic laboratory, P. A. Surg. H. D. Geddings, herewith appended, it will be seen that the dried products are considered to be but slightly dangerous. Other food products must bear the certificate of the Marine-Hospital Service officer at the Asiatic port that they were prepared in and shipped from places not infected with bubonic plague or cholera. With this certificate they are allowed to pass; otherwise they are not. The following circular telegram is explanatory of the above position:

[Telegram.]

WASHINGTON, *January 23, 1901.*

KINYOUN, *Angel Island, Cal.:*

Circular telegram. Arrange with steamship lines bringing lily bulbs, water chestnuts, yams, loam-packed eggs, and similar articles, to have them stored easily accessible on arrival. If visé by service officers abroad, may pass; otherwise disinfect by immersion in 2 per cent formalin solution, 100 parts water.

WYMAN.

This telegram was also sent to San Diego, San Pedro, Eureka, Hoquiam, Astoria, and Port Townsend quarantines.

The restraints upon dried food products were later removed entirely, as will be seen by the following telegrams:

[Telegrams.]

ANGEL ISLAND, CAL., *July 1, 1901.*

Surgeon-General WYMAN, *Washington:*

Prohibited Chinese food products shipped by rail in bond as domestic goods, Victoria, British Columbia, to Seattle, thence by steamer *Umatilla* to San Francisco, avoiding United States quarantine regulations. Shall we reject? Urgent.

CARMICHAEL.

WASHINGTON, *July 2, 1901.*

CARMICHAEL, *Quarantine, Angel Island, Cal.:*

Replying to your telegram, July 1, concerning prohibited food products coming by rail from Vancouver to Seattle, thence by steamer to San Francisco, and requesting instructions, your telegram anticipates contemplated order modifying the regulations concerning some of these food products. From recent tests in the laboratory the Bureau is assured that dried food products such as dried ducks, dried oysters, dried cuttlefish, dried gizzards, dried gizzards in oil, and other dried products may be admitted. Moist articles, however, such as come in cans and crocks, are not included in this order of modification. Therefore you will still exclude the latter, endeavor to obtain samples of same and express to Bureau for test, informing owners it is done in interest both of safety and of commerce.

Mail copies of this telegram to Kerr and Eldridge.

WYMAN.

"Kerr and Eldridge" mentioned in preceding telegram refer to Asst. Surg. John W. Kerr, Marine-Hospital Service, stationed at Hongkong, and Acting Asst. Surg. Stuart Eldridge, service inspector the port of Yokohama.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

LABORATORY REPORT ON FOOD PRODUCTS

Forwarding report of acting assistant of the hygienic laboratory, P. A. Surg. H. D. Goddings, with regard to the food products above mentioned:

[illegible]

[illegible]

Again, too, I would invite your attention to the fact that a condition which obtained in all these experiments was one very far from obtaining under normal conditions, viz, the fact of an intentional, abundant inoculation with a pure culture of the materials subjected to test, and this culture one of known activity and virulence.

A second departure from normal conditions was in the fact that all the materials receiving the abundant inoculation of the virulent pure culture were sterile. In other words, the plague bacillus was not only put to growing under the before-mentioned favorable conditions of heat and moisture, but was relieved in toto from that microbial symbiosis which in the economy of nature plays so important a part in the suppression of pathogenic organisms.

I do not think, therefore, that the valuable experiments in the laboratory, complete and painstaking though they be, should be held as establishing a standard in the case of food products where the following conditions would establish a strong dissimilarity of conditions:

(1) Food products are never intentionally inoculated with plague organisms, or, for that matter, with any others. On the contrary, no matter how careless the operator and how slovenly the method of preparation, care is exercised to protect from gross contamination. The products, it is true, may accidentally become contaminated by preparation in a dwelling where plague prevails. After preparation it may become contaminated in the warehouse or store by being "muzzled" by a rat suffering from the pneumonic form of the disease, or a plague-infected rat may nest, or even die, on the products; or the foods may be contaminated by dust containing virulent and viable plague bacilli. But granting any or all of these possibilities (nothing is said of probabilities), should the contamination take place it is at once confronted by the following condition:

(2) That all products for wear, for use in the arts, or for food are the seat of contamination by saprophytic bacteria, and that there is at once set up a conflict between the pathogene on the one hand and the saprophyte on the other, in which contests the hardier saprophyte usually comes off victorious over the more deadly but more highly organized and sensitive pathogene.

I repeat, therefore, that the conditions obtaining in exact laboratory experimentation are not applicable to and do not form an exact rule of conduct for quarantine matters, in which the normal, natural conditions obtain.

The continuation of the experiments which formed the basis for Dr. Rosenau's preliminary note leads in the main to the conclusion that if a substance is favorable for the retention of moisture, it will afford a good culture medium for the growth of the plague bacillus, unless it have in itself some inherent property which renders it unsuitable. This latter may be something added to it in the process of manufacture, as the sizing or filling in certain fabrics, or the resins or gums contained in woods, or the bacteria which find a habitat in manufactured foods.

Thus the plague bacillus failed to grow on linen crash until it had been thoroughly freed of its sizing by washing; on sawdust it lived but one day; on flannel only three days; on a piece of carpet (the effect probably of the dye) it did not grow at all.

The following food products were tried and gave the following results: On cheese it lived from thirteen to seventeen days, but this only after the cheese had been thoroughly sterilized and melted; on rice, sterilized, three days; on dried salt beef, three days; on orange peel, no growth; on figs and raisins, no growth, though subsequent experiments showed this to be due to the amount of glucose or fruit sugar contained.

Further, a staple article of Chinese food, a duck dried and smoked, was obtained, and from this small pieces were cut and placed in sterile Petri dishes. These pieces were then liberally inoculated with a bouillon culture of the plague bacillus and the dishes placed in the incubator. Another portion was placed directly in a tube of bouillon, and its growth proved that it was free from bacteria, save the hay bacillus and its spores. For several days small pieces were cut off from those contained in the dishes, and these were also planted into bouillon tubes. The length of life of the plague bacillus under these conditions and this microbial association is uncertain. For two or three days they were present in numbers; this number grew rapidly more limited, and by the twelfth day the plague bacilli were difficult of detection. Between this and the eighteenth day they disappeared completely, though the hay bacillus is still active and is growing in great abundance.

Subsequently a large assortment of Chinese food products was obtained, and with these experiments were made. The products in question consisted of the legs of smoked and dried ducks; dried oysters; dried cuttlefish; dried ducks' gizzards; ducks' gizzards dried and then placed in oil; smoked and dried pork; ducks' eggs rved in a mixture of mud and rice chaff. In this last the mixture had origi- been wet, but had dried out until there only remained a mass of pulverulent and chaff surrounding the egg.

[illegible]

[illegible]

[illegible]

BUBONIC PLAGUE AT SAN FRANCISCO, CAL.

[illegible] date of the last annual report of the SERVICE, November 1, [illegible] cases reported as having occurred in the city of San [illegible] March [illegible], 18 cases of bubonic plague [illegible] death. Two cases, deceased October [illegible] and November 1, respectively, were reported November 2, and therefore [illegible] the report for 1900. The last case [illegible] reported October 24, 1900, since which date there have [illegible]

5. The United States Treasury Department, through the U. S. Marine-Hospital Service, will continue, with the approval of the Civil Service Commission, the employment of the sanitary inspectors and employees now connected with the stations, unless there be objections to their efficiency or competency.

6. In the event of the acceptance of this agreement, the Treasury Department (U. S. Marine-Hospital Service) will recommend to Congress appropriations for the immediate improvement of the stations, to secure the most expeditious and thorough service at all points.

7. The United States Treasury Department (Marine-Hospital Service) will appoint the State health officer of Florida a sanitary inspector of the Marine-Hospital Service, with advisory and recommendatory functions in the management and operation of the quarantine and inspection stations thus leased or transferred, and will furnish, when and as often as may be deemed necessary, transportation for the purpose of inspecting said stations, and also making inventories and valuations of the various plants it is proposed to lease or transfer. The traveling expenses of the said sanitary inspector, when on quarantine duty directed by the Department (Marine-Hospital Service), will be paid upon duly rendered vouchers.

8. Congress having made an appropriation for the establishment of a quarantine station at Mullet Key, the United States Treasury Department will entertain a proposition to pay the State of Florida for the quarantine plant now at Mullet Key.

Washington, D. C., July 20, 1901.

Accepted.

L. J. GAGE, *Secretary of the Treasury.*

Accepted July 16, 1901.

W. S. JENNINGS, *Governor, and President B. I.,*
WM. H. REYNOLDS, *Comptroller,*
J. B. WHITFIELD, *State Treasurer,*
B. E. MCLIN, *Commissioner of Agriculture,*
W. B. LAMAR, *Attorney-General,*
Board of Commissioners of State Institutions.

Attest:

C. H. DICKINSON, *Secretary of the Board.*

Accepted.

E. M. HENDRY,
President State Board of Health of Florida.

Attest:

JOSEPH Y. PORTER,
[SEAL.] *Secretary State Board of Health of Florida, State Health Officer.*

[Extract of copy of minutes of meeting of the State board of health of Florida while in called session at Tallahassee, Fla., July 16, 1901.]

RESOLUTION ADOPTED BY THE STATE BOARD OF HEALTH OF FLORIDA WHILE IN CALLED SESSION AT TALLAHASSEE., FLA., JULY 16, 1901.

Resolved by the State board of health of Florida, That it hereby accepts, agrees to, and authorizes the sale of Mullet Key quarantine station, subject to the concurrence of the board of commissioners of State institutions of Florida.

Resolved, Second, That the board of commissioners of State institutions be advised of the action of the board of health in the premises, and that the board of commissioners of State institutions be, and are hereby, requested to join in the transfer or conveyance of the title to said plant and property to the Treasury Department, to the end that these negotiations may be completed without delay, and that a copy of these resolutions be furnished to the board of commissioners of State institutions with the earnest request that said board act favorably thereon as early as possible.

Resolved further, That Hon. E. M. Hendry, president State board of health, be, and he is hereby, appointed as representative on the part of the State board of health, to appraise said quarantine plant at Mullet Key, with the representative of the United States Treasury Department (U. S. Marine-Hospital Service), and to do and perform all necessary acts in accordance herewith, in order to sell and transfer said plant to the Treasury Department on behalf of the State board of health of Florida, as herein contemplated; and be it further

Resolved, That upon the completion and execution of bill of sale of Mullet Key station, that the State board of health of Florida accepts and agrees to enter into the following agreement subject to approval and concurrence of the board of commissioners

San Francisco Quarantine Station,
[illegible]

Sir: In regard to Bureau letter of the 29th instant and [illegible] telegram sent on the 27th, I have the honor to state that [illegible] cases of plague have occurred in San Francisco among the Chinese. All cases terminated fatally. The first death occurred on October [illegible], at [illegible] [Dupont?] street. The case was a cigar maker who had been working [illegible] in a cigar factory on Sullivan street. The history which was obtained [illegible] was that he had been ill [illegible]. [illegible] The post-mortem examination was limited to the removal of the enlarged [illegible] glands [illegible]

[illegible]

Below is a summary of the transactions on this frontier and the individual reports of the officers in charge at the stations named:

Summary of transactions, Texas-Mexican border.

	Trains inspected.	Persons inspected.	Persons detained for observation.	Sent back to Mexico.	Vaccinated.
Eagle Pass	384	15,230	18	425	98
El Paso	.....	10,414	33	.....	.....
Laredo	730	51,430	135	.....	.....
Total	.....	77,074	186	.....	.....

EL PASO, TEX.

[Report of transactions at El Paso border quarantine, by Acting Asst. Surg. E. ALEXANDER.]

EL PASO, TEX., *August 29, 1901.*

SIR: I have the honor to submit herewith a summary of transactions at this station from July 1, 1900, to June 30, 1901:

Inspection Mexican Central Railway passengers	8,018
Special inspection of passengers from City of Mexico on account of typhus fever prevailing there	270
Inspection of Rio Grande and Pacific passengers	1,519
Inspection of excursion parties from Mexico	328
Inspection of private cars from Mexico	70
Inspection of party, Mexican contingent to Pan-American Buffalo Exhibition	131
Inspection of various freight crews	78
Inspection of "Certificate of death" of bodies contained in hermetically sealed coffins shipped into United States	7
Inspection of different fruits imported from Mexico; detained in all, from infected places and on account of smallpox, three, five, and twenty days	29
Disinfection of trunks, clothing, household goods, and the belongings of immigrants	1,516
Disinfection of soiled linen imported for laundry work	19,903
Disinfection of Pullman linen from Mexico	96,046
Disinfection of 16 importations of cattle hides	5,601
Disinfection of carload of bones	4
Vaccination of immigrants, their children, and other destitutes	382

April last I was informed by passengers and Mexican Central officials that there was at that time a rather large amount of sickness in the City of Mexico and a very high death rate, and knowing that a system of sewerage was being put in and the ground torn up in every direction, I suspicioned typhus fever was prevailing there. This might be expected under the circumstances, and I commenced at once to examine passengers from the City of Mexico for the regularity of pulse and their normal temperature, which was only a precautionary measure and not a quarantine, as the American consul-general and some Mexican papers called it.

It gives me satisfaction to state that though smallpox has been prevalent in many localities in all parts of the United States, El Paso, Tex., and Juarez, Mexico, have been almost free of the disease.

Ninety-eight per cent of all the population in both cities are thoroughly vaccinated, which is certainly a very satisfactory proof of the value of vaccination. There have been a few sporadic cases of smallpox here, but they came from the lower part of Texas and New Mexico. Such, fearing to be put in the smallpox hospital, generally run away and take refuge with some lower class of Mexican families, who have no more fear of smallpox than an American mother has of measles.

Most of such cases I have quarantined in Juarez and detained them twenty days before they were admitted into the United States.

Of late some of the American laity, and not a few of physicians, call smallpox "Cuban itch." I have seen such cases, but always found every symptom of genuine smallpox. In my practice in this country I have found among cattlemen and butch-

[illegible]

[illegible] Marine-Hospital Service.

EAGLE PASS, TEX.

[illegible]

[illegible]

[illegible]

QUARANTINE [illegible]

On December [illegible] San Francisco quarantine [illegible] quarantine certain Chinese food products, necessitated [illegible] from [illegible]

an office without salary. It is one of his duties to investigate and inquire into the cause of all deaths occurring among the Chinese who have not been attended during their last illness by a white physician, and to issue the necessary death certificate. The perquisite of his office is a fee of $3 for issuing each certificate. This is paid by the family or friends of the deceased or often by the Chinese undertaker. It is seldom, if ever, that Dr. Wilson is called to see a case during life, and the first intimation he has of a death occurring is when the undertaker notifies him to come and issue the certificate; whereupon he proceeds to make the necessary investigation.

The history of the case is gathered by what can be obtained from the family and friends and undertaker, and further by an inspection of the body. It is seldom indeed that a straightforward history can be obtained concerning the last illness of the decedent. The family and friends will usually tell all sorts of impossible stories, and with evident intent to deceive. Frequently, however, no history can be obtained, and the diagnosis and cause of death must be made by simply inspecting the body. I have witnessed the efforts to obtain histories concerning some of these cases, and can personally attest to the great difficulties which are encountered. It is next to impossible, in my opinion, to form anything like a correct diagnosis as to the cause of death. It is a matter largely of guesswork.

The position occupied by Dr. Wilson is, in fact, an adjunct to the coroner's office, and when viewed in this light it appears to me that the laws governing coroners' cases are not observed.

As the diagnoses of the majority of cases occurring among the Chinese are made up upon the evidence furnished by the relatives and friends, and not by what is revealed by post-mortem examinations, it will only emphasize the correctness of the conclusion which I propose to draw a little farther on. A post-mortem examination is a rarity, only made when there is a strong suspicion that the case is one of bubonic plague.

By referring again to the inclosed list of deaths particular attention is invited to the causes of death. It will be seen that there have occurred 28 cases of interstitial nephritis, acute and chronic; 2 cases of parenchymatous nephritis, 6 of endocarditis, 2 of cerebral apoplexy, 4 of lobar pneumonia, 1 of acute peritonitis, 9 of bubonic plague. Particular attention is called to the cases of interstitial nephritis and endocarditis. Twelve cases of interstitial nephritis and six cases of endocarditis have occurred during the month of November. The diagnoses in all these cases have been made post-mortem, and not on autopsy findings. While I do not wish to unduly criticise a diagnosis made under these circumstances, it seems to me that it is next to impossible to arrive at the exact cause of death by such an examination as is now conducted.

In the matter of cases of plague occurring at 802 Dupont street on November 1 and 2 last, I happened to be present at the partial post-mortem examination conducted by Drs. Kellogg and Wilson. While there Dr. Wilson mentioned to me that only a few weeks before he had taken a body out of this same apartment wherein the cases of plague occurred which, from the history he obtained at that time, he thought had died from lobar pneumonia. In looking over the records I find that on September 10 a Chinese school-teacher died in these premises, the cause of death being certified to by Dr. Wilson as lobar pneumonia. On October 25 another death occurred in this same house, of a Chinese woman aged 23 years, from interstitial nephritis, which was also certified to by Dr. Wilson. Following these two cases were those of bubonic plague, occurring November 1. Dr. Wilson admitted to me that the case of the Chinaman who died of supposed lobar pneumonia on September 10 was in all probability one of bubonic plague, but that he did not think of such a possibility at the time he made his investigation. In all probability all these cases were bubonic plague. The same supposition applies to many other cases occurring during this period, and particularly to those of November, wherein the number of cases of interstitial nephritis and endocarditis are unusually large, and are out of proportion to the deaths from other causes.

A few days ago I transmitted to the Bureau a map on which is shown the location of the cases of plague which have occurred in San Francisco since March 6 last. (See map which accompanies report of plague commission, hereinafter published.) It will be observed that the cases occurring have been, save in two instances, independent one from another. The first instance that we note is a secondary case occurring at 767 Clay street, and another at 802 Dupont street. These furnish instances where secondary cases were contracted from what appears to be an infection of the premises. All others are independent and no connection so far can be traced between any of them.

There is an intermediary which has not as yet been mentioned heretofore, which must not be disregarded—that is, the recovered cases. All cases of plague which

have been discovered up to date have been fatal. No mild cases have been discovered. It would be most unusual to suppose that the number of cases reported by the health office are all that have occurred in San Francisco, because no epidemic of plague so far has been attended with a mortality of 100 percent. We do know that there have been a number of cases of plague which have been returned to the health office as other diseases. If fatal cases of plague have been returned to the health office as typhoid fever, phlegmonous erysipelas, typhoid pneumonia, and diphtheria, it is only fair to assume that mild cases presenting a mild type of the above-mentioned diseases would be returned to the health office under these names and be treated as such.

I am inclined to believe that the mild cases of plague have not been recognized as plague, but have been treated as other diseases by the practitioner and with no [illegible] evidence. These recovered cases, of which there must be a few, are no doubt one of the media through which the infection is disseminated and kept alive. We must not be unmindful of the infected premises, the pawnshop, the opium den, the gambling resort, and various other agencies for spreading disease. Looking over all the histories of the cases, [illegible] have not been able to point to a single case of infection in all probability to [illegible] resorts of what [illegible] white man knew or perhaps [illegible] ever knew.

The [illegible] records as now sent to the health office [illegible] show a very great increase in the number of deaths over the same period last year. Notwithstanding this fact it is believed by many physicians [illegible] those of the members of the board of health, that the number of deaths reported were [illegible] which occurred in the Chinese quarter. [illegible] regarding this point are to be [illegible] in a paragraph [illegible] the British Medical Journal [illegible] of 1900, page 1[illegible], which says:

There can be no doubt that Chinatown, San Francisco, has been infected since the early part of this year at least, although the number of cases known to have occurred is small. [illegible]

There is a fact [illegible] infection from spreading more rapidly than [illegible] way in which the individual Chinaman lives. [illegible] more than 6 feet wide by 6 feet long [illegible] Here [illegible] a space 12 feet square, which [illegible] 16 feet square, [illegible] I believe [illegible] plague [illegible] the time being [illegible] these circumstances so far [illegible] quarters were huddled together in [illegible].

Another feature in preventing the spread [illegible] Chinese fatalism [illegible] Chinaman is [illegible] the welfare because fewer [illegible] of the house suspect that the [illegible] a general exodus, [illegible] several Chinese I am told that [illegible] disease is [illegible] restricted [illegible] a number of houses where the disease was [illegible] health was apprised of the nature of the case. [illegible] investigate the cause of death [illegible] the coroner and the [illegible].

The sanitary condition of Chinatown [illegible] the year. The streets and [illegible] The rains and fogs have added [illegible] improvement of the miserable paved streets. [illegible] condition as last year. The main [illegible] and the houses, and they are [illegible] Chinese further still inhabit the [illegible] overcrowding, overcooking, and [illegible] overcrowding if not only cooking and [illegible] and burning at the same time [illegible]

if they were compelled to burrow. The obstacles which were in the way of dealing with the plague last spring have in my opinion in no wise diminished; in fact I think I am warranted in saying that they have increased. The various injunctions which have been entertained by both State and Federal courts, the contempt proceedings against the quarantine officer of last June, the aid and abetting of a certain clique of lawyers, the political capital which could be made out of the situation, have all conspired to convince the Chinese Six Companies that the Chinaman is in no wise to be considered obliged to observe or comply with the health laws of the city, State, or United States. The attitude assumed by this powerful corporation forms a good excuse for the individual Chinaman, the Tong and Highbinder Societies, to follow suit and set at naught and defiance any or all the laws, rules, and regulations which are considered necessary for the sanitary protection of the citizens of this State and country.

On November 24 I saw Health Officer Dr. O'Brien, and the whole subject of the plague situation in the Chinese quarter was discussed. During this interview he admitted to me that so far the health department had been absolutely powerless to enforce the sanitary regulations in Chinatown or make any progress toward eradicating the infection of plague from this quarter. The continued opposition of the Chinese as a body toward all white interference had rendered their best-laid plans nugatory. At present they were practically in the same position as last spring, and were in the dark as to what was going on in this quarter. From all I can gather it appears that Dr. O'Brien's statement fully covers the ground and aptly describes the situation.

The Federal court has seen fit, since the cases of plague occurred in October, to make some modification of its sweeping orders, which prevented anyone from doing anything in Chinatown. The health authorities are now allowed to remove those suspected of being exposed to plague to a place of observation in Chinatown—even allowed to exercise force to keep these persons under observation for a reasonable time. This is considered a great concession when one recalls what has transpired during the last seven months. I am told that Mayor Phelan has been approached in regard to the situation, and he has agreed to see what can be done toward furnishing the necessary means to equip a place for segregating suspects, if one can be found. The health office, through its chief sanitary inspector, Dr. Chalmers, has attempted to gain possession of a place in Chinatown which is admirably adapted for a place of detention, but has been prevented by threats of legal process to prevent its use for this purpose. So far no place has been provided.

The board of health has no funds available for carrying out anything else than the ordinary routine work of its department. The board of supervisors appropriated the sum of $7,500 early last spring for the purpose of controlling epidemics, but since then no funds have been available for the board of health for this purpose. Matters are going along in the usual way, with no effort being taken to enforce measures considered necessary anywhere else to stamp out plague.

In my letters of October 19 and 29 I made the statement that the board of health had not taken any steps toward enforcing a proper disinfection of premises wherein cases of plague occurred, there being no system nor adequate force for this purpose. There is no systematic inspection made of the Chinese quarter or districts adjacent thereto. As previously stated, the only information which the health authorities have of a case of plague occurring is that a dead Chinaman is to be found at such and such a place; whereupon an investigation is made.

Physicians practicing in Chinatown are, so I have been informed, instructed to report all cases presenting suspicious symptoms to the health office. This is not done save in a few instances—one of the physicians has reported a case of plague. The majority of the white physicians practicing among the Chinese have not impressed me favorably. Many of them are nothing more nor less than vampires, who engage in the work simply for the living that is in it, and will do anything to curry favor with their patients, who most naturally are opposed to the health authorities. The board of health does not expect the Chinese physicians to pay any attention to its requests or mandates. In fact, it is very difficult to ascertain who the Chinese physician was in attendance on a case during its last illness.

In Bureau telegram of the 1st instant I fail to understand one portion, which refers to the approval of measures.[a] If it is meant measures which I would approve for the eradication of plague in San Francisco, they would be on the following order:

First, that an inspecting corps of a few good medical men be appointed for duty in the infected district. That it would be the duty of these inspectors to investigate

[a] Telegram read: "Wire briefly" measures, etc. Evidently mistake in transmission, etc.

We have noted the attitude of the "commercial interests" in Southern States where yellow fever has appeared, but never has it approached anything like what is to be found here. It would be difficult to say what will be necessary to awaken these people to their responsibility as citizens of the United States.

* * * * * * *

As to the probable cost of eradicating plague from San Francisco, it would, in my opinion, be not less than has been required for Glasgow and Sydney. As I stated in one of my dispatches of May last, this is one of the most stupendous problems that the people of San Francisco have ever attempted to solve. The reports that $5,000,000 have been expended in Glasgow and $2,500,000 in Sydney may be exaggerations, but I am certain that before San Francisco rids herself of the plague infection she will be called upon to spend more than $7,500, which is the amount so far appropriated for the suppression of bubonic plague.

Respectfully,

J. J. KINYOUN,
Surgeon, Marine-Hospital Service.

DECEMBER 7.

P. S.—I have just received information from the health office that a case of suspicious illness has been reported by a Dr. Hodgehead, which he thinks requires investigation. Dr. Kellogg, bacteriologist of the city board of health, informs me that he has just returned from seeing a sick Chinese at 844 Washington street, which presented the clinical evidences of plague. A few drops of serum were obtained from the enlarged mass of glands in the femoral region, which on examination revealed the typical organism of bubonic plague. The case died on the morning of December 7, and in the evening I was present at the autopsy. The post-mortem examination revealed the typical evidences of plague. Microscopic examination of specimens made from the spleen, the enlarged gland, and the heart's blood demonstrated the bacillus of plague. No history can be obtained concerning the case other than Dr. Hodgehead (who may be recalled as being one of the inspectors for the State board of health, and also for the Chinese Six Companies) reported to the health office, i. e., that he had just seen a case of suspicious illness which he thought required investigation. The case was first seen by him on December 5. There is a rumor that the man had been ill for six days, but it is not confirmed. I have made the usual cultivations and animal inoculations. I will report further on the case within a day or two.

Respectfully

J. J. KINYOUN,
Surgeon, Marine-Hospital Service.

One case of plague occurred in December, and it was reported as follows:

[Telegrams.]

ANGEL ISLAND, CAL., *December 8, 1900.*

Surgeon-General WYMAN, *Washington:*

Another case suspected plague reported to the health officer December 6, died December 7. Post-mortem examination shows large femoral bubo and enlarged spleen, both containing typical organism. Case occurred on Washington street. No history obtained. Animal inoculations made.

KINYOUN.

ANGEL ISLAND, CAL., *December 13, 1900.*

Surgeon-General WYMAN, *Washington:*

Case plague dead December 7; diagnosis confirmed by bacteriological examination.

KINYOUN.

DETAIL OF SURG. J. H. WHITE.

In view of the facts contained in the foregoing correspondence, and because of a controversy with regard to certain food products from China which had been held up by the United States quarantine officer at San Francisco, the Pacific coast stations having also been some time without inspection, it was deemed advisable that the officer in charge

of the Bureau division of domestic quarantine, Surg. J. H. White, who has direct supervision under the Surgeon-General of these matters, should make a general tour of inspection on the Pacific coast. For correspondence, etc., with regard to the food products above mentioned, see headline "Quarantine decisions regarding certain Chinese food products," page 487.)

On December 26, therefore, the following letter was addressed to Surgeon White, detailing him for this duty:

TREASURY DEPARTMENT,
OFFICE [illegible] M. H. S.,
Washington, [illegible]

SIR: You are hereby directed to proceed [illegible] Pacific coast [illegible] inspection [illegible] to inspect [illegible] Marine Hospital at San Francisco [illegible] must be determined [illegible] and proceed first to San Francisco. [illegible] any matters relating to the Marine-Hospital Service [illegible] and particularly that part of the Service [illegible] and domestic quarantine [illegible] food products, which [illegible] be made [illegible] and make [illegible] regarding the quarantine [illegible]

You [illegible] keep the Bureau [illegible] language [illegible] New Orleans [illegible] with Passed Assistant Surgeon [illegible]

As there [illegible]

Respectfully,

[illegible]

Surg. J. H. WHITE,
Marine-Hospital Service.

JANUARY, [illegible]

On January [illegible] Surgeon White [illegible] correspondence ensued:

[illegible]

Surgeon-General, Washington, D. C.:
[illegible] White report [illegible]

[illegible]

Surgeon-General, Washington, D. C.:
SIR: [illegible]
[illegible] January [illegible]
[illegible] San Francisco [illegible]
[illegible] Chinese animal and vegetable [illegible]
and [illegible] January [illegible]

WASHINGTON, *January 9, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Regarding plague in San Francisco you might say situation not acute. Experiences Oporto, Santos, and Glasgow, and climatic conditions in San Francisco make it more a matter of future menace, as instanced in British Journal, December 1, page 1614. Present in Calcutta two years before acknowledged. Therefore, more to prevent future catastrophe than from present alarm, measures should be taken as necessity arises. Nor need they be in such manner as to excite alarm, but should include inspection, isolation and disinfection, just as in smallpox. Assured of this, publication would be unnecessary. Use this as your judgment dictates.

WYMAN.

SAN FRANCISCO QUARANTINE STATION,
Angel Island, Cal., January 9, 1901.

SIR:

* * * * * * *

(NOTE.—The starred portions of this letter refer to the controversy over Chinese food products, etc.)

* * * * * * *

I went with Dr. Kinyoun, Dr. Ryfkogel, bacteriologist of the State board of health, Dr. Kellogg, bacteriologist of the city board of health, and Dr. Chalmers, chief sanitary inspector, into the basement of 720 Jackson street at 10 o'clock on the morning of the 8th, and there saw the body of the Chinaman, a specimen from which had been examined on the night previous and found to contain plague bacilli, and I desire to add my testimony, for whatever it may be worth, to that of the others, in stating that it is my honest opinion that this man died of true bubonic plague. As a matter of common sense, it may be stated that the man either died of syphilitic inguinal bubo, chancroidal bubo, or bubonic plague, and I take it that no enlightened physician will claim that syphilis destroys life with a septic bubo, or that a chancroidal bubo exists without a chancroid, and therefore I am, on clinical data alone, absolutely forced to the conclusion that this man died of bubonic plague. I make this statement because various innuendoes have been put forth to the effect that possibly these corpses were inoculated with bacilli which have been found in the spleen, in the buboes, in the blood and in the various glands. For this reason I have called attention to the clinical side of the matter only, but I have also seen under the microscope the bacilli in this particular case, as well as in some of the others. I have carefully read the clinical histories in all these cases. I have met and conversed with Drs. Ryfkogel and Kellogg, and I am satisfied of their integrity and reliability. The corpse of this Chinaman rested on a board, one end of which was resting on a trestle and the other on a box of chow intended for the consumption of the Chinese people. Piled up behind the man were dozens of other boxes and bales of chow.

* * * * * * *

Respectfully,

J. H. WHITE,
Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Telegrams.]

ANGEL ISLAND, CAL., *January 10, 1901.*

Surgeon-General WYMAN, *Washington:*

The governor of California desires plenary power for State board of health and new State quarantine officer for San Francisco personally controlled. Wrote you yesterday. See clippings, charges by implication plague inoculation. J. H. White thinks testimony of highest bacteriologist in America needed when J. J. Kinyoun will have diagnosis confirmed by bacteriological examination. Governor will not try to discover the truth if he can escape doing so.

WHITE.

[illegible]

Surgeon-General WYMAN, [illegible]:

In response [illegible] statements and [illegible] charges [illegible] governor of California in message, I most respectfully request [illegible] letter of December 6. Every statement made therein true and fully [illegible]. [illegible] has by [illegible] charged me being accessory to [illegible] with imported plague germs in order to foist upon [illegible] plague [illegible]. This reflects on Service as well as myself. Great stress now being laid press dispatch from Washington saying that Surgeon-General has no longer any confidence in reports sent by me regarding plague here, as no further mention made in Public Health Reports. I [illegible] and discredited. Situation demands action be taken by [illegible] [illegible]. Rumors [illegible] Congress [illegible] investigation, which I hope are true.

KINYOUN.

[illegible]

KINYOUN, [illegible]:

[illegible] Public Health Reports January [illegible] [illegible] after receiving [illegible].

WYMAN.

[illegible]

Surgeon [illegible]:

[illegible]

W[illegible].

[illegible]

Surgeon-General WYMAN, [illegible]:

[illegible]

W[illegible].

[illegible]

Surgeon-General WYMAN, [illegible]:

[illegible]

[illegible]

Surgeon-General WYMAN, [illegible]:

Your telegram [illegible] board of health [illegible] suggested instituting [illegible]

can best judge. Mandamus deferred by Judge Morrow to January 21. Judge Morrow former partner collector of customs. Apparently friendly. Kinyoun is ill, but not seriously, with appendicitis.

WHITE.

SAN FRANCISCO, CAL., *January 15, 1901.*

Surgeon-General WYMAN, *Washington:*

Referring to your telegram of 13, suggest Flexner and Barker having clinical knowledge plague. Findings not subject to carping. Write to-day fully. Request authority to proceed to Port Townsend, Seattle, Tacoma, Astoria, for the purpose of completing northern inspection, and return so as to be here, if possible, on time for matters named above. Norton, representing the State quarantine officer of Texas, informs me that there has been a death from pneumonia, two days' duration, at Bakersfield, Cal. There is one case plague reported at San Francisco, January 15. Kinyoun is still ill.

WHITE.

WASHINGTON, *January 18, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Flexner and Barker have accepted; Novy possibly. Will have them consult you on arrival, and it is understood that thermostats, culture media, etc., can be obtained there.

WYMAN.

SAN FRANCISCO, CAL., *January 18, 1901.*

Surgeon-General WYMAN, *Washington:*

Your telegram of January 18 received. Excellent thermostat and media at San Francisco Quarantine and San Francisco. Regarding matter mentioned by me regarding Bakersfield, bacteriologist of the State health authorities says specimen is very suspicious, smear affirmative. Thirty-seven fatal pneumonia reported there since January 10. Confidential until confirmation.

WHITE.

ANGEL ISLAND, CAL.,
January 18, 1901.

Surgeon-General WYMAN, *Washington:*

Case of plague reported January 6 confirmed by bacteriological examination. Also case reported occurring, Clay street, January 10. Another case (white) found dead, city hospital, January 16. Tissues submitted by the local board of health show typical organism. No history obtainable last cases; no connection between them. Rumors reported to J. H. White concerning Bakersfield confirmed by telephone received from the health officer January 18, stating a large number of cases of pneumonia have occurred among whites last two weeks, majority fatal. Member of the State board received specimens from Bakersfield which he submitted to bacteriologist of the State board for examination. Member says situation serious, but noncommittal about bacteriologist. The State board enjoined not to give out results of examination, but informs (absolutely confidential) that organism in spleen tissue gravely suspicious of plague. Believe Service should know facts. I am decidedly better; now out of danger; recovering rapidly.

KINYOUN.

WASHINGTON, *January 19, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Regarding Bakersfield, though a matter of great importance, advise you to recall cases at Butte.

WYMAN.

Explanatory of the reference to Butte in the last telegram, it should be stated that during the year an epidemic of suspiciously virulent pneumonia occurred at Butte, Mont., so severe in type as to give rise to apprehension regarding the possibility of its being plague in pneumonic form, but upon investigation it proved to be epidemic pneumonia.

COMMISSION OF EXPERT DIAGNOSTICIANS APPOINTED.

As indicated in several of the foregoing telegrams to and from Surgeon White, it now seemed evident that, to a large extent, the success or failure of measures for the eradication of plague infection in San Francisco hinged upon the general acceptance of the correctness of the diagnosis. The local press and many of those high in authority, both sanitary and political, had been for some time strenuously denying the existence of plague in San Francisco, and although the Bureau and the Treasury Department both felt the most implicit confidence in the diagnosis, as already announced by officers of the Service and local bacteriologists, it was thought to be for the best interests of all to have a decision rendered on this point by men not in any way connected with Government service and who had had no previous connection with the situation in San Francisco, at the same time holding such high place as experts in plague matters as to render their diagnoses a conclusive proof of the existence or non-existence of the disease. Accordingly, such action was taken, and a commission of experts, consisting of Prof. Simon Flexner, of the University of Pennsylvania, Prof. [illegible] Novy, of the University of Michigan, and Prof. [illegible] Barker, of the University of Chicago, was appointed on January [illegible] and at once proceeded to San Francisco. These gentlemen fulfilled all the requirements of strict neutrality, through experience with plague, clinically and bacteriologically, in different parts of the world, and were of such high standing as experts in this line of work as to make their joint opinion in the matter authoritative. The full report of this commission will appear later on. Below will be found the letter of appointment, signed by the Secretary of the Treasury, and the letter of instructions, signed by the Surgeon-General.

[illegible]

[illegible]

GENTLEMEN: You are hereby [illegible] to be the purpose [illegible] in the city of San Francisco [illegible] by the Surgeon-General of the [illegible] Marine-Hospital Service.

Respectfully,

[illegible]

Prof. Simon Flexner,
University of Pennsylvania.

Prof. [illegible] Novy,
University of Michigan.

Prof. [illegible] Barker,
University of Chicago.

[illegible]

[illegible]

[illegible] I inclose herewith a [illegible] Treasury, appointing a [illegible]

purpose of ascertaining the existence or nonexistence of bubonic plague in San Francisco or other ports or places in the State of California, under such instructions as shall be furnished by the Surgeon-General of the United States Marine-Hospital Service.

The commission is composed as follows: Prof. Simon Flexner, University of Pennsylvania, chairman; Prof. F. G. Novy, University of Michigan; Prof. L. F. Barker, University of Chicago, recorder.

A copy of the Secretary's letter has been furnished to the other members of the commission.

In accordance with the letter of the honorable the Secretary of the Treasury, you are directed to proceed, at the earliest practicable date, to San Francisco, where the commission will hold its first meeting at the Occidental Hotel.

You are informed that the bubonic plague has been reported to exist in San Francisco, and its existence has also been strenuously denied, and you are directed to place yourself in communication with the proper local authorities, with a view to obtaining facilities for the examination of cases, either deceased or living, suspected of being infected with this disease. You are further informed that it is the desire of this Bureau that your investigations should be entirely unprejudiced and independent. It is left for the commission to determine a proper location for pursuing its investigations, and it will meet with the approval of the Bureau if accommodations can be obtained at one of the laboratories connected with one of the institutions of learning in San Francisco.

At such time as shall seem appropriate the commission will call and pay their respects to the governor of the State and to the mayor of San Francisco.

A full report of your procedures and of your findings will be prepared by the recorder, signed by all the members of the commission, and the same transmitted to the Bureau immediately upon reaching a conclusion. The chairman of the commission, when a conclusion has been reached, will telegraph the same briefly to the Bureau, and your findings will not be otherwise given out until authorized by the Bureau. To this end you will await final orders from the Bureau before departure from San Francisco.

Vouchers are inclosed herewith upon which your accounts should be rendered for the expenditures incurred under the terms of the letter of the Secretary of January 19. If other expenditures become necessary, there are two courses to be pursued.

First. The small expenditures are to be paid by yourself, an accurate account of which should be kept, and a bill rendered by yourself for same. Receipts should be taken in all cases where possible and attached to the bill as subvouchers.

Second. Expenditures or expenses involving larger amounts. Should these become necessary you are requested to telegraph the Bureau, stating the approximate amounts and the purposes for which the expenditures are necessary, and receiving instructions from the Bureau relative thereto.

All expenditures other than those covered by the letter of the Secretary of January 19 shall be incurred only by the chairman of the commission.

You are requested, at least two or three times a week, to make a brief written report of the status of your investigations, not necessarily technical, in order that the Bureau may be informed as to the progress of the work of the commission.

Respectfully,

WALTER WYMAN,
Surgeon-General Marine-Hospital Service.

Prof. SIMON FLEXNER,
University of Pennsylvania, Philadelphia, Pa.

[Telegrams.]

WASHINGTON, *January 23, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Representative Chicago left last night, other two to leave Chicago to-morrow night. Instructions mailed them San Francisco at Occidental Hotel. Regarding notification to the governor arrangements have been made with California Senator to telegraph to the governor day commission arrives.

WYMAN.

WASHINGTON, *January 23, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Telegram received from Kinyoun, requesting authority to purchase generator, implies commission may work at San Francisco quarantine. Inform Kinyoun commission's instructions contemplate independence of Marine-Hospital Service and they

[illegible] California University as working ground. [illegible] It is impossible to obtain working [illegible] San Francisco [illegible] matter for consideration with [illegible]

[illegible]

San Francisco, [illegible]

Surgeon-General Wyman, Washington:

Both your telegrams of the 23d received and understood. Was ordinary [illegible] to the governor today. The governor will [illegible] to arrange with the President, the Secretary of the Treasury and the Surgeon-General of the Marine Hospital Service to take charge of the work at San Francisco and [illegible] this end the governor [illegible] to Washington [illegible] March [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

On this date the governor was informed of the adoption of the commission and its purpose by the following telegram signed by Senator Perkins:

[illegible]

[illegible]

[illegible]

[illegible]

if they were compelled to burrow. The obstacles which were in the way of dealing with the plague last spring have in my opinion in no wise diminished; in fact I think I am warranted in saying that they have increased. The various injunctions which have been entertained by both State and Federal courts, the contempt proceedings against the quarantine officer of last June, the aid and abetting of a certain clique of lawyers, the political capital which could be made out of the situation, have all conspired to convince the Chinese Six Companies that the Chinaman is in no wise to be considered obliged to observe or comply with the health laws of the city, State, or United States. The attitude assumed by this powerful corporation forms a good excuse for the individual Chinaman, the Tong and Highbinder Societies, to follow suit and set at naught and defiance any or all the laws, rules, and regulations which are considered necessary for the sanitary protection of the citizens of this State and country.

On November 24 I saw Health Officer Dr. O'Brien, and the whole subject of the plague situation in the Chinese quarter was discussed. During this interview he admitted to me that so far the health department had been absolutely powerless to enforce the sanitary regulations in Chinatown or make any progress toward eradicating the infection of plague from this quarter. The continued opposition of the Chinese as a body toward all white interference had rendered their best-laid plans nugatory. At present they were practically in the same position as last spring, and were in the dark as to what was going on in this quarter. From all I can gather it appears that Dr. O'Brien's statement fully covers the ground and aptly describes the situation.

The Federal court has seen fit, since the cases of plague occurred in October, to make some modification of its sweeping orders, which prevented anyone from doing anything in Chinatown. The health authorities are now allowed to remove those suspected of being exposed to plague to a place of observation in Chinatown—even allowed to exercise force to keep these persons under observation for a reasonable time. This is considered a great concession when one recalls what has transpired during the last seven months. I am told that Mayor Phelan has been approached in regard to the situation, and he has agreed to see what can be done toward furnishing the necessary means to equip a place for segregating suspects, if one can be found. The health office, through its chief sanitary inspector, Dr. Chalmers, has attempted to gain possession of a place in Chinatown which is admirably adapted for a place of detention, but has been prevented by threats of legal process to prevent its use for this purpose. So far no place has been provided.

The board of health has no funds available for carrying out anything else than the ordinary routine work of its department. The board of supervisors appropriated the sum of $7,500 early last spring for the purpose of controlling epidemics, but since then no funds have been available for the board of health for this purpose. Matters are going along in the usual way, with no effort being taken to enforce measures considered necessary anywhere else to stamp out plague.

In my letters of October 19 and 29 I made the statement that the board of health had not taken any steps toward enforcing a proper disinfection of premises wherein cases of plague occurred, there being no system nor adequate force for this purpose. There is no systematic inspection made of the Chinese quarter or districts adjacent thereto. As previously stated, the only information which the health authorities have of a case of plague occurring is that a dead Chinaman is to be found at such and such a place; whereupon an investigation is made.

Physicians practicing in Chinatown are, so I have been informed, instructed to report all cases presenting suspicious symptoms to the health office. This is not done save in a few instances—one of the physicians has reported a case of plague. The majority of the white physicians practicing among the Chinese have not impressed me favorably. Many of them are nothing more nor less than vampires, who engage in the work simply for the living that is in it, and will do anything to curry favor with their patients, who most naturally are opposed to the health authorities. The board of health does not expect the Chinese physicians to pay any attention to its requests or mandates. In fact, it is very difficult to ascertain who the Chinese physician was in attendance on a case during its last illness.

In Bureau telegram of the 1st instant I fail to understand one portion, which refers to the approval of measures.[a] If it is meant measures which I would approve for the eradication of plague in San Francisco, they would be on the following order:

First, that an inspecting corps of a few good medical men be appointed for duty in the infected district. That it would be the duty of these inspectors to investigate

[a] Telegram read: "Wire briefly" measures, etc. Evidently mistake in transmission, etc.

We have noted the attitude of the "commercial interests" in Southern States where yellow fever has appeared, but never has it approached anything like what is to be found here. It would be difficult to say what will be necessary to awaken these people to their responsibility as citizens of the United States.

* * * * * * *

As to the probable cost of eradicating plague from San Francisco, it would, in my opinion, be not less than has been required for Glasgow and Sydney. As I stated in one of my dispatches of May last, this is one of the most stupendous problems that the people of San Francisco have ever attempted to solve. The reports that $5,000,000 have been expended in Glasgow and $2,500,000 in Sydney may be exaggerations, but I am certain that before San Francisco rids herself of the plague infection she will be called upon to spend more than $7,500, which is the amount so far appropriated for the suppression of bubonic plague.

Respectfully,

J. J. KINYOUN,
Surgeon, Marine-Hospital Service.

DECEMBER 7.

P. S.—I have just received information from the health office that a case of suspicious illness has been reported by a Dr. Hodgehead, which he thinks requires investigation. Dr. Kellogg, bacteriologist of the city board of health, informs me that he has just returned from seeing a sick Chinese at 844 Washington street, which presented the clinical evidences of plague. A few drops of serum were obtained from the enlarged mass of glands in the femoral region, which on examination revealed the typical organism of bubonic plague. The case died on the morning of December 7, and in the evening I was present at the autopsy. The post-mortem examination revealed the typical evidences of plague. Microscopic examination of specimens made from the spleen, the enlarged gland, and the heart's blood demonstrated the bacillus of plague. No history can be obtained concerning the case other than Dr. Hodgehead (who may be recalled as being one of the inspectors for the State board of health, and also for the Chinese Six Companies) reported to the health office, i. e., that he had just seen a case of suspicious illness which he thought required investigation. The case was first seen by him on December 5. There is a rumor that the man had been ill for six days, but it is not confirmed. I have made the usual cultivations and animal inoculations. I will report further on the case within a day or two.

Respectfully

J. J. KINYOUN,
Surgeon, Marine-Hospital Service.

One case of plague occurred in December, and it was reported as follows:

[Telegrams.]

ANGEL ISLAND, CAL., *December 8, 1900.*

Surgeon-General WYMAN, *Washington:*

Another case suspected plague reported to the health officer December 6, died December 7. Post-mortem examination shows large femoral bubo and enlarged spleen, both containing typical organism. Case occurred on Washington street. No history obtained. Animal inoculations made.

KINYOUN.

ANGEL ISLAND, CAL., *December 13, 1900.*

Surgeon-General WYMAN, *Washington:*

Case plague dead December 7; diagnosis confirmed by bacteriological examination.

KINYOUN.

DETAIL OF SURG. J. H. WHITE.

In view of the facts contained in the foregoing correspondence, and because of a controversy with regard to certain food products from China which had been held up by the United States quarantine officer at San Francisco, the Pacific coast stations having also been some time without inspection, it was deemed advisable that the officer in charge

of the Bureau division of domestic quarantine, Surg. J. H. White, who has direct supervision under the Surgeon General of these matters, should make a general tour of inspection on the Pacific coast. For correspondence, etc., with regard to the food products above mentioned, see headline "Quarantine decisions regarding certain Chinese food products," page 487.)

On December 26, therefore, the following letter was addressed to Surgeon White, detailing him for this duty:

TREASURY DEPARTMENT
OFFICE OF SURGEON GENERAL M. H. S.
Washington, [illegible]

Sir: You are hereby directed to proceed to the Pacific coast to make a tour of inspection of the United States quarantine stations located [illegible] and to inspect the U. S. marine hospital at San Francisco. Your itinerary on the coast will be determined by yourself, though it is deemed advisable by the Bureau that you should proceed first to San Francisco. While in that city you will examine into the matters relating to the Marine-Hospital Service which may require your attention, and particularly that part of the Service work which comes under your own division of domestic quarantine in the Bureau. You will [illegible] the matter of food products, which, as you are aware, have engaged the attention of the Bureau for some time, and make such recommendations as may seem necessary regarding the quarantine regulations affecting [illegible].

You will keep the Bureau thoroughly informed as to your movements so that important instructions may be sent you at the proper time. [illegible] the Bureau in case of New Orleans, where you will find [illegible] hospital and other [illegible] Passed Assistant Surgeon [illegible] [illegible]

[illegible]

Respectfully,

WYMAN, [illegible]
Surgeon General, U. S. M. H. S.

Surg. J. H. White,
[illegible]

JANUARY, 1901.

On January 1 Surgeon White telegraphed his arrival, and the following correspondence ensued:

[illegible]

Surgeon General WYMAN, [illegible]

[illegible] I will report further after [illegible]

[illegible]

[illegible]

Surgeon General WYMAN, [illegible]

[illegible] January 7th, [illegible] regulations [illegible] San Francisco [illegible] formally to Bureau, but [illegible] Chinese animal and vegetable food products [illegible] meantime leaving January 11 [illegible]

WASHINGTON, *January 9, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Regarding plague in San Francisco you might say situation not acute. Experiences Oporto, Santos, and Glasgow, and climatic conditions in San Francisco make it more a matter of future menace, as instanced in British Journal, December 1, page 1614. Present in Calcutta two years before acknowledged. Therefore, more to prevent future catastrophe than from present alarm, measures should be taken as necessity arises. Nor need they be in such manner as to excite alarm, but should include inspection, isolation and disinfection, just as in smallpox. Assured of this, publication would be unnecessary. Use this as your judgment dictates.

WYMAN.

SAN FRANCISCO QUARANTINE STATION,
Angel Island, Cal., January 9, 1901.

SIR:

* * * * * * *

(NOTE.—The starred portions of this letter refer to the controversy over Chinese food products, etc.)

* * * * * * *

I went with Dr. Kinyoun, Dr. Ryfkogel, bacteriologist of the State board of health, Dr. Kellogg, bacteriologist of the city board of health, and Dr. Chalmers, chief sanitary inspector, into the basement of 720 Jackson street at 10 o'clock on the morning of the 8th, and there saw the body of the Chinaman, a specimen from which had been examined on the night previous and found to contain plague bacilli, and I desire to add my testimony, for whatever it may be worth, to that of the others, in stating that it is my honest opinion that this man died of true bubonic plague. As a matter of common sense, it may be stated that the man either died of syphilitic inguinal bubo, chancroidal bubo, or bubonic plague, and I take it that no enlightened physician will claim that syphilis destroys life with a septic bubo, or that a chancroidal bubo exists without a chancroid, and therefore I am, on clinical data alone, absolutely forced to the conclusion that this man died of bubonic plague. I make this statement because various innuendoes have been put forth to the effect that possibly these corpses were inoculated with bacilli which have been found in the spleen, in the buboes, in the blood and in the various glands. For this reason have called attention to the clinical side of the matter only, but I have also seen under the microscope the bacilli in this particular case, as well as in some of the others. I have carefully read the clinical histories in all these cases. I have met and conversed with Drs. Ryfkogel and Kellogg, and I am satisfied of their integrity and reliability. The corpse of this Chinaman rested on a board, one end of which was resting on a trestle and the other on a box of chow intended for the consumption of the Chinese people. Piled up behind the man were dozens of other boxes and bales of chow.

* * * * * * *

Respectfully,

J. H. WHITE,
Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Telegrams.]

ANGEL ISLAND, CAL., *January 10, 1901.*

Surgeon-General WYMAN, *Washington:*

The governor of California desires plenary power for State board of health and new State quarantine officer for San Francisco personally controlled. Wrote you yesterday. See clippings, charges by implication plague inoculation. J. H. White thinks testimony of highest bacteriologist in America needed when J. J. Kinyoun will have diagnosis confirmed by bacteriological examination. Governor will not try to discover the truth if he can escape doing so.

WHITE.

We believe that through these several [illegible] the [illegible] of the investigation of the commission [illegible] has been secured. We have [illegible] been permitted to be present at several post-mortem examinations [illegible] and [illegible] the results of which are not yet established.

[illegible] certain complications, the [illegible] we have learned sufficient [illegible] the laboratory at the university has been [illegible] in securing [illegible] other quarters and an arrangement with the [illegible] has been consummated whereby a [illegible] Certain apparatus [illegible] never [illegible] purchased.

I have the honor to remain [illegible] very respectfully,

[illegible]

Surgeon-General WALTER WYMAN,
Marine-Hospital Service, Washington, D.C.

[illegible]

Surgeon WALTER [illegible]

Keeping [illegible] Marine-[illegible]

[illegible]

[illegible]

Surgeon WALTER [illegible]

Text [illegible]

[illegible]

[illegible]

Surgeon-General Marine-Hospital Service [illegible]

Regarding [illegible]

[illegible] Assistant Secretary [illegible]

[illegible]

[illegible]

Surgeon-General Marine-Hospital Service [illegible]

[illegible]

Surgeon-General Marine-Hospital [illegible]

Am awaiting orders. [illegible] undertaken.

25145 [illegible]

WASHINGTON, *February 14, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

If the commission confirms diagnosis the services of yourself may be required for consultation with the governor as to measures. Therefore doubt advisability of your immediate departure from San Francisco.

WYMAN.

SAN FRANCISCO, CAL., *February 18, 1901.*

Surgeon-General WYMAN, *Washington:*

The commission appointed by the Treasury Department, having obtained, through the representatives of the Six Companies, at the instance of the commercial interests of San Francisco, access to the sick and dead in Chinatown during the twelve days from February 5 to 16, found, among 13 who died, 6 deaths from plague. Diagnosis confirmed by bacteriological examination, anatomical and pathological signs. Three patients seen, and 2 recognized as plague before death. Six cases were found between February 5 and 12, inclusive. In one instance two patients in one house. Other four patients isolated in different premises, Chinatown. February 13 to 16 did not see any plague.

FLEXNER.

SAN FRANCISCO, CAL., *February 18, 1901.*

Surgeon-General WYMAN, *Washington:*

Having seen the governor February 16th, the secretary of the California board of health and other officials think it best for commission to proceed to Sacramento, seeing and conferring with the governor immediately; that you inform him, and indeed, if circumstances will allow you to authorize me coincidently as your agent or the agent of the Secretary, to convey the information to the governor, who can not make use of the code. Publicity will be avoided, which think is very desirable, as there is an uneasy feeling prevailing, and this will make the conditions as easy as possible. Hereafter think you had better arrange as suggested, because much better results will follow; also think it best to have another conference with the commercial interests of San Francisco for the same reasons.

FLEXNER.

WASHINGTON, *February 18, 1901.*

Prof. SIMON FLEXNER, *San Francisco, Cal.:*

Proceed immediately to Sacramento and inform the governor that diagnosis has been confirmed and inform no one else. White has been instructed to confer with governor also. Upon completing mission return to San Francisco, report your arrival by wire, and await orders.

WYMAN.

CORRESPONDENCE WITH THE GOVERNOR.

On February 18 a telegram was sent by the governor of California to the President, complaining that the commission's investigation was unfair, as California was not represented thereon, and requesting a reinvestigation, with commission composed half of State and half of Federal appointees. This proposition being declined, the governor then asked that final action upon findings of the commission be not taken until he himself, or his representatives, could come to Washington to consult with Federal authorities. Following is the correspondence covering this period:

Explanatory of the reference to Butte in the last telegram, it should be stated that during the year an epidemic of suspiciously virulent pneumonia occurred at Butte, Mont., so severe in type as to give rise to apprehension regarding the possibility of its being plague in pneumonic form, but upon investigation it proved to be epidemic pneumonia.

COMMISSION OF EXPERT DIAGNOSTICIANS APPOINTED.

As indicated in several of the foregoing telegrams to and from Surgeon White, it now seemed evident that, to a large extent, the success or failure of measures for the eradication of plague infection in San Francisco hinged upon the general acceptance of the correctness of the diagnosis. The local press and many of those high in authority, both sanitary and political, had been for some time strenuously denying the existence of plague in San Francisco, and although the Bureau and the Treasury Department both felt the most implicit confidence in the diagnosis, as already announced by others of the Service and local bacteriologists, it was thought to be for the best interests of all to have a decision rendered on this point by men not in any way connected with Government service and who had had no previous connection with the situation in San Francisco, at the same time looking such high place as experts in plague matters as to render their diagnosis a conclusive proof of the existence or non-existence of the disease. Accordingly, such action was taken, and a commission of experts, consisting of Prof. Simon Flexner, of the University of Pennsylvania, Prof. [illegible] Novy, of the University of Michigan, and Prof. [illegible] Barker, of the University of Chicago, was appointed on January [illegible] and at once proceeded to San Francisco. These gentlemen fulfilled all the requirements of strict neutrality, being experts in plague, clinically and bacteriologically, in different parts of the world, and were of such high standing as experts in this line of work as to make their joint opinion in the matter authoritative. The full report of this commission will appear later. Below we [illegible] the letter of appointment, signed by the Secretary of [illegible] the letter of instructions, signed by the Surgeon General:

[illegible]

GENTLEMEN: You are [illegible]
[illegible] the purpose [illegible]
[illegible] the city of San Francisco [illegible]
[illegible] the Surgeon General [illegible]
Respectfully,

Prof. Simon Flexner,
[illegible]
Prof. [illegible] Novy,
[illegible]
Prof. [illegible] Barker,
[illegible]

[illegible]

[illegible] marine hospital [illegible]
Treasury, appointing a [illegible]

purpose of ascertaining the existence or nonexistence of bubonic plague in San Francisco or other ports or places in the State of Calfornia, under such instructions as shall be furnished by the Surgeon-General of the United States Marine-Hospital Service.

The commission is composed as follows: Prof. Simon Flexner, University of Pennsylvania, chairman; Prof. F. G. Novy, University of Michigan; Prof. L. F. Barker, University of Chicago, recorder.

A copy of the Secretary's letter has been furnished to the other members of the commission.

In accordance with the letter of the honorable the Secretary of the Treasury, you are directed to proceed, at the earliest practicable date, to San Francisco, where the commission will hold its first meeting at the Occidental Hotel.

You are informed that the bubonic plague has been reported to exist in San Francisco, and its existence has also been strenuously denied, and you are directed to place yourself in communication with the proper local authorities, with a view to obtaining facilities for the examination of cases, either deceased or living, suspected of being infected with this disease. You are further informed that it is the desire of this Bureau that your investigations should be entirely unprejudiced and independent. It is left for the commission to determine a proper location for pursuing its investigations, and it will meet with the approval of the Bureau if accommodations can be obtained at one of the laboratories connected with one of the institutions of learning in San Francisco.

At such time as shall seem appropriate the commission will call and pay their respects to the governor of the State and to the mayor of San Francisco.

A full report of your procedures and of your findings will be prepared by the recorder, signed by all the members of the commission, and the same transmitted to the Bureau immediately upon reaching a conclusion. The chairman of the commission, when a conclusion has been reached, will telegraph the same briefly to the Bureau, and your findings will not be otherwise given out until authorized by the Bureau. To this end you will await final orders from the Bureau before departure from San Francisco.

Vouchers are inclosed herewith upon which your accounts should be rendered for the expenditures incurred under the terms of the letter of the Secretary of January 19. If other expenditures become necessary, there are two courses to be pursued.

First. The small expenditures are to be paid by yourself, an accurate account of which should be kept, and a bill rendered by yourself for same. Receipts should be taken in all cases where possible and attached to the bill as subvouchers.

Second. Expenditures or expenses involving larger amounts. Should these become necessary you are requested to telegraph the Bureau, stating the approximate amounts and the purposes for which the expenditures are necessary, and receiving instructions from the Bureau relative thereto.

All expenditures other than those covered by the letter of the Secretary of January 19 shall be incurred only by the chairman of the commission.

You are requested, at least two or three times a week, to make a brief written report of the status of your investigations, not necessarily technical, in order that the Bureau may be informed as to the progress of the work of the commission.

Respectfully,

WALTER WYMAN,
Surgeon-General Marine-Hospital Service.

Prof. SIMON FLEXNER,
University of Pennsylvania, Philadelphia, Pa.

[Telegrams.]

WASHINGTON, *January 23, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Representative Chicago left last night, other two to leave Chicago to-morrow night. Instructions mailed them San Francisco at Occidental Hotel. Regarding notification to the governor arrangements have been made with California Senator to telegraph to the governor day commission arrives.

WYMAN.

WASHINGTON, *January 23, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Telegram received from Kinyoun, requesting authority to purchase generator, implies commission may work at San Francisco quarantine. Inform Kinyoun commission's instructions contemplate independence of Marine-Hospital Service and they

[illegible] California University as working ground. And there [illegible] but [illegible] connected. It is impossible to obtain working [illegible] and San Francisco [illegible] matter for consideration with reference relations.

WYMAN.

San Francisco, January [illegible], 1907.

Surgeon-General WYMAN, Washington:

Your telegram of the 23d received and understood. Was cordially received [illegible] the governor today. The governor will endeavor to arrange with the President, the Secretary of the Treasury and the Surgeon-General of the Marine-Hospital Service [illegible] the Marine-Hospital Service to take charge of the work at San Francisco and [illegible]. To this end the governor to go to Washington D. C. about March [illegible]. I think.

WYMAN.

Washington, January [illegible], 1907.

Dr. J. H. BANKS, San Francisco:

[illegible] January [illegible] Surgeon-General [illegible] Department [illegible] Hearing [illegible] Investigation [illegible] Department [illegible] Hearing [illegible] respects at suitable time [illegible] confidential [illegible] return [illegible] show this to other [illegible].

WYMAN.

Washington, [illegible]

Surgeon WYMAN, San Francisco:

[illegible] Surgeon-General.

WYMAN.

On this date the governor was informed of the advent of the commission and its purpose by the following telegram signed by Senator [illegible]:

Washington, [illegible], 1907.

San Francisco, Department of Commerce and Labor:

Treasury Department [illegible] the Treasury [illegible] Marine-Hospital Service [illegible] Department of Commerce and Labor [illegible] the future. [illegible] The matter is so far [illegible].

[illegible]

VICIOUS PNEUMONIA AT BAKERSFIELD.

The cases, suspected of being plague, at Bakersfield, were finally reported to be probably vicious pneumonia, as shown in following correspondence:

[Telegrams.]

WASHINGTON, *January 25, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Wire what conclusions have been arrived at concerning Bakersfield.

WYMAN.

SAN FRANCISCO, CAL., *January 25, 1901.*

Surgeon-General WYMAN, *Washington:*

Findings since first smear specimen have been negative. My informant returned from there says probably vicious pneumonia.

WHITE.

WASHINGTON, *January 25, 1901.*

Hon. JOSEPH D. SAYERS, Governor, *Austin, Tex.:*

Have information that microscopic examination has not developed any appearances of plague at Bakersfield and that the cases are probably cases of vicious pneumonia.

WALTER WYMAN.

WASHINGTON, *January 25, 1901.*

Dr. EDMOND SOUCHON, *New Orleans, La.:*

Have information cases at Bakersfield probably vicious pneumonia.

WYMAN.

Following correspondence regarding commission, etc., then ensues:

[Telegrams.]

WASHINGTON, *January 28, 1901.*

Prof. SIMON FLEXNER, *San Francisco, Cal.:*

Please have commission call upon mayor to pay respects. Inform him of your orders and consider this as part of same.

WYMAN.

WASHINGTON, *January 28, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Have wired Flexner to have commission call upon Phelan at once to pay respects and inform him of their orders. See Flexner as to best method of doing this and meeting any others that you think necessary. It was understood from your telegrams that arrangements could be readily made for observations.

WYMAN.

SAN FRANCISCO, CAL., *January 28, 1901.*

Surgeon-General WYMAN, *Washington:*

Telegram received. Arrangements made satisfactory. They will see mayor and have seen city board. No trouble about seeing cases unless governor interposes, which says not.

WHITE.

San Francisco, Cal., February 21, 1901.

Surgeon-General Wyman, Washington:

Along matter mentioned in your telegram as to detains, am sure governor, [illegible] fund, will decline compensation under terms named and possibly [illegible] Will not see him till you answer this. Believe whole land [illegible] Marine-Hospital Service. Answer quickly.

White.

Washington, February 21, 1901.

White, San Francisco, Cal.:

Mary has wired the governor as follows: Here is quoted the above telegram [illegible] beginning: Replying to your telegram of February 19, etc. Con[illegible] with governor and impress on him that the Treasury Department must [illegible] request from him. You may inform him that if affirmative action is [illegible] White will be put in charge, that Dr. Kinyoun's whole time will be [illegible] strictly maritime quarantine work, and it is not expected under the circumstances to call him into active municipal work.

Wyman.

Washington, [illegible]

White, San Francisco, Cal.:

[illegible] the governor suggested [illegible] tomorrow [illegible] and terms wired today were partly suggested [illegible] and [illegible] necessarily [illegible] Matter will be considered with the Secretary of the Treasury and other [illegible] have also suggested [illegible] there.

Wyman.

Washington, [illegible]

White, San Francisco, Cal.:

[illegible] received with satisfaction. See in telegram to White. Leave Navy [illegible] and yourself to remain in San Francisco [illegible] days while matters are arranged with the governor. At present [illegible] to have [illegible] matters [illegible] interests [illegible] possible [illegible] Have you sent full report [illegible]

Wyman.

San Francisco, Cal., [illegible]

Surgeon-General Wyman, Washington:

[illegible] that the governor [illegible] Marine-Hospital Service [illegible] appear to entertain similar [illegible] governor might use the Sinaloa [illegible] undertakes all incidental expenses and takes charge [illegible] In order to avoid serious [illegible] perhaps at great expense. I [illegible] Treasury [illegible] fund charge and responsibility [illegible] international [illegible] I agree to frankly admit that the [illegible] granting such admission [illegible] necessary permission [illegible]

[illegible]

San Francisco, [illegible]

Hon. J. Gage,
Secretary of the Treasury, Washington, D. C.:

[illegible] Angeles [illegible] Senator White. He [illegible] Immediately [illegible] February 21st.

W. H. [illegible]

WASHINGTON, *January 9, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Regarding plague in San Francisco you might say situation not acute. Experiences Oporto, Santos, and Glasgow, and climatic conditions in San Francisco make it more a matter of future menace, as instanced in British Journal, December 1, page 1614. Present in Calcutta two years before acknowledged. Therefore, more to prevent future catastrophe than from present alarm, measures should be taken as necessity arises. Nor need they be in such manner as to excite alarm, but should include inspection, isolation and disinfection, just as in smallpox. Assured of this, publication would be unnecessary. Use this as your judgment dictates.

WYMAN.

SAN FRANCISCO QUARANTINE STATION,
Angel Island, Cal., January 9, 1901.

SIR:

* * * * * * *

(NOTE.—The starred portions of this letter refer to the controversy over Chinese food products, etc.)

* * * * * * *

I went with Dr. Kinyoun, Dr. Ryfkogel, bacteriologist of the State board of health, Dr. Kellogg, bacteriologist of the city board of health, and Dr. Chalmers chief sanitary inspector, into the basement of 720 Jackson street at 10 o'clock on the morning of the 8th, and there saw the body of the Chinaman, a specimen from which had been examined on the night previous and found to contain plague bacilli, and I desire to add my testimony, for whatever it may be worth, to that of the others, in stating that it is my honest opinion that this man died of true bubonic plague. As a matter of common sense, it may be stated that the man either died of syphilitic inguinal bubo, chancroidal bubo, or bubonic plague, and I take it that no enlightened physician will claim that syphilis destroys life with a septic bubo, or that a chancroidal bubo exists without a chancroid, and therefore I am, on clinical data alone, absolutely forced to the conclusion that this man died of bubonic plague. I make this statement because various innuendoes have been put forth to the effect that possibly these corpses were inoculated with bacilli which have been found in the spleen, in the buboes, in the blood and in the various glands. For this reason I have called attention to the clinical side of the matter only, but I have also seen under the microscope the bacilli in this particular case, as well as in some of the others. I have carefully read the clinical histories in all these cases. I have met and conversed with Drs. Ryfkogel and Kellogg, and I am satisfied of their integrity and reliability. The corpse of this Chinaman rested on a board, one end of which was resting on a trestle and the other on a box of chow intended for the consumption of the Chinese people. Piled up behind the man were dozens of other boxes and bales of chow.

* * * * * * *

Respectfully,

J. H. WHITE,
Surgeon, Marine-Hospital Service.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Telegrams.]

ANGEL ISLAND, CAL., *January 10, 1901.*

Surgeon-General WYMAN, *Washington:*

The governor of California desires plenary power for State board of health and new State quarantine officer for San Francisco personally controlled. Wrote you yesterday. See clippings, charges by implication plague inoculation. J. H. White thinks testimony of highest bacteriologist in America needed when J. J. Kinyoun will have diagnosis confirmed by bacteriological examination. Governor will not try to discover the truth if he can escape doing so.

WHITE.

WASHINGTON, *February* [illegible], [illegible].

[illegible] the GOVERNOR OF CALIFORNIA,
Sacramento, Cal.

[illegible]owledging receipt of your telegram of the 25th, the Department wishes to [illegible] its appreciation of your courteous attitude in the matter under consideration [illegible] to submit to you the following suggestions, namely, that in the work to [illegible], while all ordinary expenses incurred in the payment of its own officers [illegible] met by the Department, under the law and in accordance with usage the [illegible] should be borne by the city of San Francisco. The mayor and other [illegible] local authorities should be notified, as were you, with a view to an under[illegible] as to this matter. No municipality has ever depended financially upon the [illegible] under like circumstances though there have been numerous parallel [illegible] epidemics of yellow fever. Even if the Department should be willing, [illegible] its announced policy, the matter would have to be brought before Con[illegible] an appropriation, which is now practically impossible, and would [illegible] [illegible] publicity. Surgeon White will be the agent of the Department in [illegible] of the whole situation, which, in view of the return of troops in the near [illegible] from the Philippines through San Francisco, will [illegible] necessary. Please [illegible] as to above suggestions.

[illegible]

WASHINGTON, [illegible]

HENRY T. [illegible],
[illegible] of California, Sacramento, [illegible]

[illegible] dispatch of February [illegible] the Secretary of the Treasury and [illegible] at your evident desire to bring [illegible] between the national [illegible] local authorities, [illegible] to attempt [illegible] have [illegible] Department [illegible] San Francisco [illegible] We [illegible] Treasury Department [illegible] has taken [illegible] of a commission of University experts [illegible] the reports which we [illegible] authorities of San Francisco. We [illegible] co-operation [illegible] the Treasury Department [illegible] [illegible]

[illegible]

WASHINGTON, [illegible]

[illegible] WHITE, [illegible]

[illegible] has [illegible] San Francisco [illegible] the State [illegible] Department [illegible]

W[illegible]

[illegible]

[illegible] WHITE, [illegible]

[illegible] received. [illegible] are in charge [illegible] results make [illegible] I know they will [illegible]

W[illegible]

STATE CAPITOL, SACRAMENTO, CAL., *February 27, 1901.*

Hon. LYMAN J. GAGE,
Secretary of the Treasury, Washington, D. C.:

There has evidently been a misunderstanding between your Department and myself, otherwise you would have accepted the proposition contained in my last dispatch, which I understood conformed with the views of your Department. Now, to avoid all complications and delay, I have this day appointed four distinguished citizens of this State to personally confer with you on the subject of your suggestions. They leave the 2d proximo direct for Washington. I am confident that all matters will be satisfactorily arranged.

HENRY T. GAGE, *Governor.*

SAN FRANCISCO, CAL., *February 28, 1901.*

Surgeon-General WYMAN, *Washington:*

As near as I can ascertain, Attorney George S. Knight, member of the California board of health, expected to start for Washington, D. C., February 26. Can learn nothing at all about mission. Do not know party well enough to express any opinions. Advise be very careful in dealing with him. The report of Joseph J. Kinyoun shows that possibly plague is now present in Sacramento. One passenger from there taken sick after two days in San Francisco.

WHITE.

SAN FRANCISCO, CAL., *February 28, 1901.*

Surgeon-General WYMAN, *Washington:*

The governor of California telephoned me the correspondence, expressing dissatisfaction and saying that four commissioners expect to start for Washington March 2, but suggested myself instead thereof. I demurred, believing it wiser to proceed immediately to Washington alone for Treasury Department. California feels that San Francisco, being the western gateway of the continent, is entitled to the consideration of the Treasury Department in broader sense than usual. Think it unlikely that San Francisco and California will cooperate. Am keeping in touch with all proper parties.

WHITE.

MARCH, 1901.

[Telegrams.]

WASHINGTON, *March 1, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Your telegram of the 28th received. That portion concerning request of the governor and your recommendation concerning same not understood. Send further details.

WYMAN.

SAN FRANCISCO, CAL., *March 1, 1901.*

Surgeon-General WYMAN, *Washington:*

I wired that Governor Gage would send four gentlemen to Washington, and he suggested that possibly I might go instead, but I told him it was better that I do not go as emissary of his side of case, though I do recommend going as Treasury representative.

WHITE.

SAN FRANCISCO, CAL., *March 1, 1901.*

Surgeon-General WYMAN, *Washington:*

Absolutely necessary that I return Philadelphia earliest practicable moment. Request be relieved and transportation.

FLEXNER.

[illegible] March 7, [illegible]

[illegible] General Wyman, Washington.

[illegible] information received February 28 that attorney Southern Pacific, proprietor Mail Steamship Company, and managers two leading dailies proceeded [illegible] special train where secret conference was held with the governor, [illegible] which conference to that no paper in San Francisco is to make mention [illegible] commission's investigation, whatever they may be, and attorney Smith [illegible], managers Chronicle, Examiner, representative Union Iron Works to [illegible] San Francisco for Washington, D. C., March 2, to appeal to the President [illegible] request differing from the governor California. Attorney the State board [illegible] on route, Washington, D. C., assist removal J. J. Kinyoun. Resolution [illegible] state legislature [illegible] that moved. The governor using every means to have [illegible] Will not try to discover the truth if he can escape doing so. Another [illegible] ahead, February 28. Diagnosis confirmed by bacteriological examination [illegible] Believe to have come from Sacramento.

Kinyoun.

Washington, D. C.

[illegible] FLEXNER, San Francisco, Cal.

[illegible] members of the commission [illegible] results [illegible] to the governor. Confer with the [illegible] in [illegible] prominent reporter [illegible] state [illegible] parties that it is considered [illegible] and [illegible] from at present time. Wire when [illegible] parties [illegible]

Wyman.

Washington, D. C.

[illegible], San Francisco, Cal.:

Telegram March 1 received. [illegible] Marine Hospital Service [illegible]

Wyman.

Washington, D. C.

San Francisco, Cal.

Telegram [illegible] Flexner. The Assistant Secretary [illegible] San Francisco [illegible] Washington [illegible]

Wyman.

San Francisco, Cal.

Surgeon General Wyman, Washington:

[illegible]

REPORT OF THE COMMISSION OF PLAGUE [illegible]

March [illegible] the following report, [illegible] plague received from Professors Flexner, [illegible] composing commission appointed by the Secretary [illegible] January [illegible] the investigation of the existence [illegible] plague in [illegible]

REPORT OF COMMISSION.

SAN FRANCISCO, CAL., *February 26, 1901.*

SIR: The special commission appointed by the honorable the Secretary of the Treasury for the purpose of ascertaining the existence or nonexistence of bubonic plague in San Francisco or other ports or places in the State of California, under instructions furnished by the Surgeon-General of the United States Marine-Hospital Service, begs leave to submit the following report:

In accordance with instructions received, the members of the commission proceeded as early as possible to San Francisco, one of them (Dr. Barker) arriving on Friday, January 25, 1901, the other two (Dr. Flexner and Dr. Novy) on Sunday, January 27.

The first formal meeting of the commission was held at the Occidental Hotel shortly after the arrival of all the members. At this meeting it was decided, in accordance with your instructions, to call and pay our respects to the honorable the governor of the State, to place ourselves in communication with the local authorities in order to obtain facilities for the examination of the sick and dead in Chinatown, or elsewhere should suspected cases arise, and to arrange for a laboratory in which pathological and bacteriological examinations could be undertaken.

Owing to the miscarriage of a letter sent to the commission by the honorable the governor of the State, the call of your commissioners upon him was delayed until Saturday, February 16. On this date, however, they had the privilege of paying their respects to the governor and of informing him of their orders. The governor received your commissioners most courteously and stated that the authorities in California desired to facilitate by every means in their power the investigation concerned.

A call was also made upon the mayor of the city of San Francisco and upon the president of the city board of health, both of whom offered to aid, in any way possible to them, the work of your commissioners. The city board of health supplied the commission with a map of Chinatown, on which were charted the location of cases which the board had examined and regarded as plague.

During the first fifteen days of our visit a bureau was opened in the Occidental Hotel; the commission met at 11 o'clock daily, and it was announced in the press that its members would be glad to confer with anyone who had information to give with regard to the existence or nonexistence of plague in the city. In addition, letters were sent to a number of physicians in town requesting an interview. The majority of those written to responded; opinions were divided, some of the physicians being confident that plague existed, others being sure that the disease was not here. The establishment of this bureau proved to be of great service, not so much in affording us information about plague as in putting us into relation with the medical and business interests of the city. Through it a plan of work became easy to formulate; through it we learned how to gain access to the sick and dead Chinese and how to proceed without exciting the opposition or suspicion of those among whom we were to work.

The representatives of the principal commercial interests of the city of San Francisco, including the Merchants' Association, the Manufacturers and Producers' Association, the Board of Trade, the Pacific Coast Jobbers and Manufacturers' Association, the Chamber of Commerce, the Pacific Mail Steamship Company, and the Southern Pacific Railway, called upon the commission, welcomed them to California, and offered their aid. Through the courtesy of Colonel Mendel, room 161 of the city hall, previously used as a license office, was put at the disposal of the commission. It was fitted out as a laboratory, the outfit being purchased new in San Francisco.

INSPECTIONS OF THE CHINESE SICK AND DEAD.

The attorney of the Chinese Consolidated Benevolent Associations (ordinarily known as the Chinese Six Companies) advised the Chinese to cooperate with the commission. As a result, proclamations were issued ordering the Chinese to report all cases of sickness and death, no matter what the cause, to the offices of the Chinese Six Companies in order that daily inspections might be made. Mr. Wong Chung, the secretary of the Six Companies, accompanied a member of the commission (Barker) daily to each house whence a report had been made, aided in finding the cases, acted as interpreter, and assisted in obtaining the necessary histories. It is believed by the members of the commission that the Chinese Six Companies acted in good faith and that they made every attempt to give access to the sick. Certain cases of sickness, it is true, were not reported and were not known of until the dead bodies were found, but this, it is believed, was due to negligence on the part of the Chinese concerned rather than to any attempt at concealment.

The daily inspections of the sick and dead permitted of observations relative to the mode of life of the people in the 14 blocks of San Francisco which make up "Chinatown." These observations were extended by special trips of inspection under the guidance of officers of the city detective force and by numerous independent trips of inspection made by your commissioners.

The dwellings of the poorer classes of Chinese were found to be here, as they seem to be everywhere, shockingly unsanitary. In places there is marked overcrowding, the rooms are small, they are often entirely devoid of light or means of ventilation, and nearly always insufficiently lighted and ventilated, many of them are filthy, some of them, especially those situated in basements, are damp and emit a foul stench. These faults in sanitation are not confined to the tenement houses of the Chinese; on the contrary, in the rear of, or over or under, some of the more pretentious business buildings are to be found sleeping and living apartments which are most objectionable from a sanitary point of view.

The Chinese in San Francisco are, however, in many respects much better off than are their countrymen in great native centers like Canton, or even than those ... like Hongkong. There is almost an entire absence of the utter destitution ... among many of the Chinese in Asia. The Chinese in San Francisco are, on the whole, very well fed, for wages are high and food is abundant and cheap. They are also well clothed as a rule, and particular emphasis is to be laid upon the fact that the Chinese here wear shoes, stockings, and trousers, since it is believed by many that the bare legs and feet of the Chinese in Hongkong and Canton had much to do with the frequency of infection with plague in those places.

A large percentage of the Chinese in San Francisco [illegible]. There are a number of Chinese prostitutes [illegible] by the latter would indicate that the [illegible] more wholesome as regards air space, light, ventilation, and cleanliness than those of the other inhabitants of the district.

On Wednesday, February 6, 1901, [illegible] one of the [illegible] company of Mr. W[illegible] in Chinatown [illegible] were [illegible] were visited [illegible] were suggestive of plague [illegible] first visit was followed [illegible] These regular visits [illegible] during which [illegible] a sufficient number [illegible] were [illegible] among the Chinese.

Inspection of the dead [illegible] of the commission [illegible] February [illegible] two ways. In the first place the assistant [illegible] Dr. [illegible] the records of the undertaking establishments [illegible] inspected [illegible] followed the dead [illegible] postmortem examination by Dr. Kellogg [illegible] Permission was obtained from these gentlemen [illegible] independent inspections and of pathological [illegible] commission.

A second mode of access to the dead [illegible] Chinese directly to the offices of the [illegible] sometimes promised to warn of the deaths [illegible] returned for them [illegible]

From February [illegible] to February [illegible]

Death 1. Inspected February [illegible] a Washington Street Theater [illegible] an age [illegible] supposed [illegible] of the [illegible] a [illegible] an autopsy [illegible] public hospital and [illegible] nature of the case. The [illegible] tuberculosis case. [illegible]

Death 2. Inspected February [illegible] at the Waverly place [illegible] There is marked [illegible] on palpation. Death certificate signed [illegible]

of the heart. Case was not regarded as suspicious and no pathological or bacteriological examination was insisted upon.

Death 3 (inspected February 5).—Lee Kee; middle-age Chinaman; found dead at 917½ Stockton street. This man had been visited by members of the commission two nights before, the case having been reported to them as one suspected of being plague. Neither when seen during life nor on inspection after death was anything seen which pointed to infection with plague. No enlargement of lymphatic glands could be made out. A pathological and bacteriological examination was, however, deemed advisable for purposes of exclusion. The results as regards plague were negative (*vide infra*—laboratory case 2). The assistant city physician attributed the death to intestinal obstruction.

Death 4 (inspected February 6).—Fong Sha Song; coolie; age, 56; found dead in "hall of tranquillity" at rear of 1111 Stockton street. No available history of condition *intra vitem;* body filthy; œdema of legs; no enlarged lymphatic glands; no visible hemorrhages; pathological and bacteriological examinations advised for purposes of exclusion. Results negative as regards plague (*vide infra*—laboratory case 4). Death attributed by city physician to interstitial nephritis.

Death 5 (inspected February 6).—Lum Hong Yuen; died in room 15, third floor, at 28 Ross alley. Body found at Main Fook's undertaking establishment, at 740 Pacific street. Through Mr. Wong Chung, the secretary of the Six Companies, a school teacher who knew deceased stated that the man had been ill about three weeks; that he had been a cook and waiter in the Chinese theater up to three weeks ago, when he quit work on account of chancre and bubo; that since then he has been in his own room in Ross alley; that four or five days before his death he was given medicine by a Chinese doctor for a chill; that said medicine was too strong for the patient, and that "his breathing stopped and he died."

On inspection of the body no evidence of chancre could be found; in the inguino-femoral region a large mass of swollen conglomerated lymphatic glands could be felt. The swelling was so like similar swellings previously observed in cases of plague in Hongkong and in India that the case was regarded as almost certainly one of plague. Pathological and bacteriological examinations were made at once; the results proved the correctness of the impression gained from inspection (*vide infra*—laboratory case 3).

Death 6 (inspected February 7).—Wong Chi Lui; age, 45; cigar maker, who had worked at 418 Battery street; found dead at 18½ (21½) Waverly place. Through Mr. Wong Chung it was ascertained that the man had been ill for about two weeks, complaining of fever, loss of appetite, and general uneasiness. He had had pains in groins and lower abdomen, to which region a Chinese doctor had applied honey and salve. No history of venereal disease. For three or four days prior to death the man was unconscious. When chided by Mr. Wong Chung for not having reported the case earlier to the Six Companies, the brother of the deceased said he had not made a report because he had believed that the patient would soon be well.

On inspection and palpation a large mass of swollen glands was discovered in the left inguino-femoral region. It seemed likely that the case was one of plague, and the friends of the deceased were notified that an examination of the body would be made immediately. The pathological and bacteriological examination established the death as one due to infection with bacillus pestis (*vide infra*—laboratory case 5).

Death 7 (inspected February 11).—Tom Shom; male; age, 51; actor in Chinese theater; room above theater, at 814 Washington street, near room of late Chum Ah Chou (see death 1). This man was reported as ill to the Six Companies, and was examined clinically on Friday, February 8, by Dr. Barker, who obtained the following history: The man had been acting in the theater about two weeks before, although it had been stated that he had not been very well for from six to seven months previously. On February 4 he became seriously ill with fever and delirium. There had been some vomiting. The urine, as observed by the attendant, was described as brandy colored. He had a Chinese doctor in attendance, and his friends had not considered him ill enough to make a report to the Six Companies worth while. The man smoked about 50 cents' worth of opium daily. On clinical examination the patient was found lying upon his back in bed, with legs drawn up. He was in a state of semistupor. His pulse was 108, quick, rather full, but of low tension. The skin was hot and dry. Respiration, 20 to the minute. The face had an anxious expression. The tongue was coated in the middle. There was no palpable enlargement of the glands of the neck or axilla, but in the right groin several slightly enlarged glands could be distinctly felt, and the patient, though his mind was partially clouded, winced decidedly when either groin was palpated. It was evident that the glands were quite tender. In the absence of urethral discharge, chancre, or evidence of local irritation in the lower extremities, the case was, on account of the

[illegible] and general phenomena, regarded as [illegible] of plague. The skin was [illegible] and a sterilized hypodermic needle introduced into the groin. A few drops of bloody fluid were withdrawn, presumably from one of the enlarged glands. It was difficult to be sure of this, however, as the patient could not be kept quiet while the needle was being inserted. No evidence of plague bacilli developed in the inoculated tube. The autopsy subsequently made indicated that the needle had failed to enter an enlarged gland.

The patient was seen on the following day, when his condition showed no change for the better. The pulse was [illegible] and feebler, the patient seemed generally weaker, and an unfavorable prognosis was made. The patient's friends were told that an injection of Yersin's serum offered the best chance for recovery. They were also informed that not much could be hoped from any treatment in the stage of the disease in which the patient then was. The offer was refused. The patient died on February 10, the next day.

The dead body was inspected on the [illegible] of February [illegible]. The body was in a state of fairly rigor mortis. The [illegible] was [illegible] and palpating the glands [illegible] that there was no enlargement of the [illegible] glands. [illegible] made out during life and [illegible] the [illegible] was believed to be [illegible] and a post-mortem examination undertaken. The results of the [illegible] with *B. pestis* [illegible] laboratory [illegible].

Death 6. Inspected February [illegible]. Mrs. W. [illegible] living in a cellar at 279 Water [illegible] February [illegible] Water [illegible] was learned that she had been [illegible] and other [illegible] [illegible] had been [illegible] the patient died [illegible] palpation [illegible] glands [illegible] Water [illegible] upon the [illegible], and the [illegible] February [illegible] the patient died [illegible] The house in which the body was found [illegible] of the [illegible] and [illegible] It was [illegible] [illegible] examined [illegible] [illegible] and [illegible] [illegible] and [illegible] [illegible] the [illegible] was [illegible] that the patient had been [illegible] respect to the [illegible] It was [illegible] through an [illegible] and a [illegible] [illegible] from the [illegible] with *B. pestis* [illegible].

Death 10. Inspected February [illegible]. This undertaking [illegible] and examined by Dr. [illegible]

intra vitam, as one of cervical bubonic plague. When seen alive he was in a room upstairs in the rear of 921½ Dupont street, opposite St. Louis alley. The man was sitting up, but looked extremely ill. His face was pale, cyanotic, and anxious looking. His voice was very feeble, but his intelligence seemed almost unclouded, and he was able to carry on a conversation, though with difficulty, with the interpreter. The friends stated that he had at times wandered in his talk. He was under the care of Dr. Mather. The patient stated that he had been ill for two weeks. His neck had been swollen for one week, and he regarded the condition as quinsy. With the aid of a tongue depressor the throat was examined. The fauces were swollen and reddened, the swelling being very marked in the left side. The left palatine tonsil was much enlarged and showed on its surface a grayish-white patch the size of a dime. The reddening in the throat was general, and there was less local injection than one ordinarily sees in diphtheria. The left side of the neck was brownish yellow, having been painted over with a solution of iodine. On inspection and palpation marked bulging was found. This seemed to be due to enlargement of the cervical lymphatic glands. The case was diagnosed as one of plague, with cervical bubo. The man died next day, and a complete autopsy was made by Dr. Flexner. The pathological examination showed typical lesions of plague, and the bacteriological examination made by Dr. Novy demonstrated the presence of *B. pestis* (*vide infra*, laboratory case 8).

Death 11 (inspected February 14).—Baby, 7 days old, found in undertaker's establishment on Clay street, having died at 717 Sacramento street. Advised making of cover slip and cultures from umbilical stump and from spleen; reported negative as regards *B. pestis*.

Death 12 (inspected February 15).—Ow Ah Lane; male; age, 55; cooly, who had worked at San Jose Junction, died at Kwang Chow "hospital" February 14, at 6 a. m. He had been ill for from six to seven months. No enlargement of lymph glands. Advised bacteriological examination of spleen. Reported negative as regards *B. pestis*.

Death 13 (inspected February 16).—Male; body found at Quong Fook's undertaking establishment. Slight swelling in right groin. Pathological examination negative as regards plague. No bacteriological examination made.

It will be noticed that of the 13 deaths which came to our attention, occurring from February 5 to February 16, inclusive, 6 were undoubtedly due to infection with plague. A seventh (death No. 8) may have been a case of plague which went unrecognized. The six undoubted deaths from plague occurred during the eight days from February 5 to February 12, inclusive. During the days February 13 to February 16, inclusive, no new cases of plague or deaths therefrom were encountered.

Two of the deaths from plague occurred in the Chinese theater, on Washington street. The other four cases occurred singly in different parts of Chinatown. The accompanying map shows the location of 6 cases observed by your commissioners, and also of those which have previously been regarded as plague by the city board of health.

The study of cases during life and the inspection of bodies after death prove that it is often difficult and under certain circumstances impossible to make a diagnosis of plague, even post-mortem, without bacteriological examination. In outspoken bubonic cases there will be but little, if any, difficulty in diagnosis, either intra vitam or post mortem, provided the observer has had sufficient experience with the disease; but in the absence of primary buboes the unskilled observer will miss practically every case, and even the practitioner who has had much experience with plague may be deceived. Your commissioners feel sure, from experience with plague in Hongkong, India, and San Francisco, that once it is established that plague exists among the Asiatics of a town, every Asiatic who has fever should be suspected as a case of infection with plague until the disease is proven to be other than plague, and every dead body should be treated as a plague cadaver until bacteriological examination of glands, lungs, and spleen (including animal inoculation) has proven the absence from the body of the B. pestis. Only by such caution will it be possible to avoid missing actual plague cases.

In the following table are given the deaths per month occurring from all cases among the Chinese during the past four years, as recorded by the city board of health. As data regarding the exact population of Chinatown at different times are not obtainable, it is difficult to institute comparisons of the mortality among the Chinese with that among the whites. It is obvious, however, that at no time during the past four years has the mortality rate among the Chinese increased to such an extent as to in itself cause alarm.

Mortality among Chinese of San Francisco, [illegible]

Months	1897	1898	1899	1900	1901	Months	1897	1898	1899	1900	1901
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	August	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		September	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		October	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		November	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		December	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] San Francisco.

[illegible] cases.

[illegible] inoculations.

[illegible] of the pathology of the cases of plague met with among the Chinese [illegible] a number of disadvantageous circumstances were contended with [illegible] owing to the peculiar prejudices of this people, prejudices born [illegible] beliefs and practices [illegible] post-mortem examinations [illegible] great reluctance. The [illegible] consent for necropsies was [illegible] examinations would be limited strictly [illegible] of the diagnosis of the disease.

[illegible] the dead were [illegible] carried [illegible] examinations as were made were conducted [illegible]

[illegible]

(*c*) Inoculation of guinea pigs with portion of tissue from the glands and spleen.

(*d*) Preservation of tissues in alcohol for future study.

The examination of the cover-slips from the glands, periglandular tissue, and spleen showed large numbers of bacilli decolorizing by Gram's method and presenting the morphology of the B. pestis.

Case 2.—Lee Kee; necropsy February 5, 9 p. m., in the presence of Dr. Flexner, performed by Dr. Kellogg. No evidence of plague.

Case 3.—February 6, Lum Hong Yuen; autopsy made in Main Fook's undertaker shop; Drs. Kellogg, Novy, and Flexner present. Upon incision the right groin, from Poupart's ligament to the beginning of the middle third of the thigh, serohemorrhagic periglandular œdema and uniformly enlarged and reddened glands were found. The amount of fluid was considerable; although there was enlargement of all the glands, some of them reached to the size of a horse-chestnut. On section, these were of deep red color and soft consistence. Necroses were present.

The spleen was enlarged to fully double the normal size; it was softened and of a deep bluish-red color.

Cultures and cover-slips were made at once by Dr. Novy and the excised tissues taken at once to the laboratory, where additional cultures were made, cover-slips examined, and animals inoculated.

The cover-slips showed large numbers of bacilli having the morphology and staining properties of B. pestis.

Case 4.—February 6, Fong Sha Shong; necropsy by Dr. Kellogg, in the presence of Drs. Novy and Flexner. No evidence of plague.

Case 5.—Wong Chi Lui, February 7; necropsy by Dr. Barker, 6 p. m. Drs. Novy and Kellogg present.

On inspection, there was a swelling in the inguino-femoral region, which, on incision, revealed enlarged glands about the saphenous opening and in the groin. The largest gland had the size of an English walnut and was of a dark reddish-brown color; it was soft and juicy in consistence and mottled with hemorrhages and grayish-white patches of necrosis. The less swollen glands were markedly injected and contained hemorrhages. Periglandular tissue was very œdematous, the fluid running freely from the incision. The spleen was about twice the normal size, soft, and friable.

Cultures were made at once by Dr. Novy and cover-slips about one hour later at the laboratory, where at the same time animals were inoculated with portions of the tissue. The cover-slips from the spleen and the glands showed bacilli presenting all the properties of B. pestis.

Case 6.—February 10, Tom Shom; necropsy by Dr. Kellogg, Drs. Barker and Novy being present.

There was a slight swelling in the right inguino-femoral region which, on incision, revealed slightly œdematous subcutaneous tissue, with slight enlargement of the glands. The largest gland had the size of a filbert, and its surface was dark and hemorrhagic; on section, it presented distinct hemorrhages; other glands were swollen, soft, juicy, and hemorrhagic. The spleen was enlarged, soft, and friable. The examination of the groin showed that the hypodermic puncture made for the withdrawal of fluid for diagnostic purposes during life had failed to enter a lymph gland.

Cover-slips from the spleen and glands showed large numbers of bacilli having the characteristic properties of the B. pestis.

Case 7.—Foong Ah Fong, February 12; necropsy by Dr. Flexner, Dr. Barker present. The spleen only was examined; the organ was enlarged to about twice the normal size and was diminished in consistence. Cover-slips showed a very small number of bacilli of the size of B. pestis, although the characteristic polar staining was not observed. Cultures were made, and a portion of the spleen was introduced subcutaneously into a guinea pig.

Case 8.—Ung Ah Buck; autopsy February 12, at noon, at the undertaking shop of Wing Hai by Dr. Flexner, Drs. Novy, Barker, Kellogg, and Wilson being present. The left side of the face and neck presented a marked diffuse swelling, extending from the angle of the jaw backwards to the sterno-cleido-mastoid muscle and below, almost reaching the clavicle.

On incising this region the parotid gland was first reached; this organ presented a normal appearance. After dissecting away the parotid gland a group of greatly enlarged deep glands surrounding the carotid artery and jugular vein came into view. The periglandular tissue was infiltrated with bloody fluid and presented a sodden appearance. The enlarged glands and portions of the surrounding tissue were excised; the former were found to be swollen (several reaching the size of an English walnut) and to be wholly altered in appearance and consistence. In color they were

[illegible] purplish, and on incision [illegible] opaque points of [illegible] were also present.

The general subcutaneous fat was well developed. There was [illegible] appeared smooth and glistening. There was [illegible] and the abdominal glands were not [illegible]. The spleen was enlarged to fully twice its normal size; it presented a purplish [illegible] and its [illegible] were [illegible]. The pleural cavities were dry. The lungs retracted [illegible] upon removal of the sternum. The [illegible] were congested, but no consolidation was made out. No other abnormality was observed [illegible] body.

The organs and tissues removed [illegible] cervical glands and spleen were taken [illegible]

The [illegible] from the spleen [illegible] the morphology and staining properties of the [illegible] appearance. [illegible] having the morphology of the [illegible]

[illegible]

The [illegible] page. In order to [illegible] placed in glass jars which [illegible]

[illegible]

In one animal in which the inoculation was made with a culture, the animal being etherized on the third day, there was slight local reaction only, no involvement of the regional lymph glands and no visible lesions in the internal organs having been observed. A small number of characteristic bacilli were found in cover-slips made from the site of inoculation.

The spleen and liver.—In the instances of rapid death (bacteræmia) the spleen was moderately large, its color was deepened, its consistence decreased, but no focal lesions were visible to the naked eye. Cover-slips and cultures showed numerous bacilli agreeing in characteristics with those of B. pestis.

In this class of cases the other organs failed to show focal lesions. The lungs appeared mottled only, and a few small necroses existed in the liver; numbers of bacilli were contained in all the viscera and in the heart's blood.

The focal lesions in the spleen consist of grayish-white nodules, larger than a millet seed in size, covering the surface (within the capsule) and occupying the substance of the organ; when the nodules are numerous, as, e. g., in animals succumbing from the sixth to the eighth day, or after etherization at that period, when there has been a marked local reaction, the spleen is greatly enlarged, perhaps five to six times its normal size, and its color is pale. Cover-slips and cultures show a very large number of characteristic bacilli if the animal has died spontaneously, while if killed the number of bacilli upon cover-slips and cultures is far less.

The liver invariably showed lesions when death had been delayed a few days. The common ones were focal necroses of varying size. These were yellow in color, and in size ranged from that of a pin's point to linear and wedge-shaped areas 3 to 4 millimeters in length. Only rarely did whitish nodules similar to but smaller than those occurring in the spleen occur. The best example of nodular lesions in the liver was observed in an animal inoculated with a culture derived from case No. 1, the guinea pig having been etherized on the eighth day after inoculation.

The lungs.—The lungs presented a variety of appearances, only one of which was characteristic. Sometimes they showed no microscopical lesion; not uncommonly they were mottled and presented small ecchymoses beneath the pleura; rarely they contained scattered whitish nodules resembling those of the spleen, except that they were smaller and surrounded with a zone of recent hemorrhage. No effusions into the pleuræ were noted.

Subserous hemorrhages.—These were common, especially in the peritoneum, where they occurred beneath and within the serosa of the large intestine, and in the pleura covering the lungs. They were usually small in size, although, at times through confluence, they reached larger dimensions. They did not give rise to an exudate or effusion into the serous cavities.

The other organs, except the adrenal glands, showed no especial changes to the naked eye. The adrenals were uniformly congested and often very dark in color and hemorrhagic.

The central nervous system was not examined.

BACTERIOLOGICAL EXAMINATIONS.

Case 1.—Chun Ah Chou, 814 Washington street; necropsy February 5. The spleen and left femoral glands were examined. These organs were found to contain enormous numbers of bacilli, having the morphological and tinctorial properties of bacillus pestis; thus, the short, thick, oval rods gave a bipolar stain with Loeffler's methylene blue or with carbolic thionin and were decolorized by Gram's method. Their pathogenicity was determined by inoculation of portions of the spleen and of a pure culture, subcutaneously, into guinea pigs.

Agar streaks made from the perfectly fresh organs showed many small, white, moist, isolated colonies, having all the appearance of those of bacillus pestis. This was further confirmed by microscopic examination of living and stained preparations of such cultures. A few rapid-growing colonies due to other forms of bacteria were present. Subcultures were made in glucose, gelatin, bouillon, agar, salt agar, and milk. On agar in Petri dishes in twenty-four to forty-eight hours in the incubator, small, white or grayish, moist colonies developed. These had finely granular center, with a smooth, sharply defined border.

The stab culture in glucose gelatin developed a slight growth along line of inoculation. On the surface the growth spread slightly, was grayish, moist in appearance, and had a slightly wavy, raised border. No gas was formed.

In bouillon in twenty-four hours a diffuse cloudiness was produced. The sediment was very slight, scarcely appreciable. Subsequently a faint stringy deposit formed. The surface remained perfectly clear, with a trace of a ring or collarette.

[illegible]

femoral region and transferred to nutrient agar. Blood was also drawn from the l of the ear and planted on agar. Stained preparations made from these specim failed to demonstrate the presence of any organism. Cultures developed pyroge cocci, but failed to give any indication of pest bacilli. On necropsy the femo glands, though characteristic of plague, were found not markedly enlarged. It v evident that the aspirating needle when introduced had missed the gland prop and the failure to isolate the pest bacillus during life in this can thus be explain It should be noted that the periglandular tissue was but very slightly involv Streak preparations made from the hemorrhagic gland showed relatively few typi plague bacilli. A long, thick bacillus was present in small numbers. Gram's st was negative. Streak preparations from the spleen showed the pest bacillus to present in large numbers and apparently pure. The organisms occurred singly, ga the bipolar stain, and were decolorized by Gram.

Guinea pig No. 8.—Was inoculated subcutaneously with a portion of the spl from this case. Six and a half days later, though healthy in appearance, it was kill A circumscribed caseus local lesion was found. There was a slight glandular enlar ment on the same side. The spleen was slightly enlarged and showed white nodul Pest bacilli having the short-rod and oval form were present in small numbers.

Case 7.—Fong Ah Fong, 747 Sacramento street; necropsy February 12. Stre preparations from the spleen revealed the presence of pest bacilli, although the were not very abundant; indeed, they were difficult to find in cover slips. Typic bipolar staining rods and oval roundish forms were, however, found. Gram's stai was negative.

Streak cultures were made with the fresh spleen on agar slants, and at the sam time agar plates were made. The agar streaks failed to give an appreciable growt but on the plate a colony was found which corresponded to that of the plague baci lus. On microscopic examination it was observed to consist of small, short, ova nonmotile rods, which decolorized by Gram. The colony transplanted to agar gav a typical growth of pest bacilli, and this culture was used to inoculate guinea pi No. 10.

Guinea pig No. 9.—Received a portion of the spleen of Fong Ah Fong subcut neously. It died in four and one-half days. The spleen contained enormous nun bers of pest bacilli, which stained in the usual bipolar manner, and were decolorize by Gram. The heart's blood likewise contained the organism. Cultures were mad on agar from the spleen and heart's blood of this animal. Both gave numerous smal moist colonies of bacillus pestis.

Guinea pig No. 10.—Was inoculated subcutaneously with the agar culture mentione above. It was killed two and one-half days later. The spleen showed only a fe but characteristic pest bacilli. Under the skin there was but slight local change, an a few typical bacilli were found.

Case 8.—Ung Ah Buck, St. Louis alley; necropsy February 12. Cover-slip prep rations from the cervical lymph glands showed the presence of several distinct orga isms. The short, thick, oval forms of the pest bacillus were present in small nun bers. With them was associated a large, thick bacillus. There were also baci present resembling the bacillus diphtheriæ and a diplococcus closely resembling th of Fraenkel. The pest bacilli gave the usual bipolar stain with methylene blue an with carbolic thionin. Specimens stained by Gram's method showed deeply staine diplococci, the other forms being decolorized. Smear preparations from the sple showed many organisms resembling the bacillus pestis morphologically.

Agar streaks from the fresh spleen gave a number of discrete moist colonies, whi consisted of large, oval, nonmotile bacilli, occurring singly and only occasionally pairs. The streak cultures from the cervical gland also gave numerous isolat colonies. In both cases the cultures obtained were apparently perfectly pure, an agreed in every respect with those of plague bacilli. The other bacteria seen cover slips did not grow. Agar plates yielded the same results.

Guinea pig No. 11.—Was inoculated subcutaneously with a small portion of t spleen from above case. In about three days the animal was very sick, and w finally killed five and one-half days after inoculation. Bacillus pestis was found the spleen, and to a less extent in the blood.

The bacteriological examination of the foregoing six cases has, therefore, dem strated the presence of the bacillus pestis in each.

SIMON FLEXNER.
F. G. NOVY.
LEWELLYS F. BARKER.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

[redacted]

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[illegible]

[illegible]	Age	Sex	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Male	Mongolian	[illegible]	[illegible]
[illegible]	[illegible]	do	do	[illegible]	[illegible]
[illegible]	[illegible]	do	do	[illegible]	[illegible]
[illegible]	[illegible]	do	do	[illegible]	[illegible]
[illegible]	[illegible]	do	do	[illegible]	[illegible]
[illegible]	[illegible]	Female	do	[illegible]	[illegible]
[illegible]	[illegible]	Male	do	[illegible]	[illegible]
[illegible]	[illegible]	Female	do	[illegible]	[illegible]
[illegible]	[illegible]	Male	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	do	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	do	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	do	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	do	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Female	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Male	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible] WITH REPRESENTATIVES OF CALIFORNIA AND SAN FRANCISCO

[illegible]

[illegible]

(*c*) Inoculation of guinea pigs with portion of tissue from the glands and spleen.

(*d*) Preservation of tissues in alcohol for future study.

The examination of the cover-slips from the glands, periglandular tissue, and spleen showed large numbers of bacilli decolorizing by Gram's method and presenting the morphology of the B. pestis.

Case 2.—Lee Kee; necropsy February 5, 9 p. m., in the presence of Dr. Flexner, performed by Dr. Kellogg. No evidence of plague.

Case 3.—February 6, Lum Hong Yuen; autopsy made in Main Fook's undertaker shop; Drs. Kellogg, Novy, and Flexner present. Upon incision the right groin, from Poupart's ligament to the beginning of the middle third of the thigh, sero-hemorrhagic periglandular œdema and uniformly enlarged and reddened glands were found. The amount of fluid was considerable; although there was enlargement of all the glands, some of them reached to the size of a horse-chestnut. On section, these were of deep red color and soft consistence. Necroses were present.

The spleen was enlarged to fully double the normal size; it was softened and of deep bluish-red color.

Cultures and cover-slips were made at once by Dr. Novy and the excised tissue taken at once to the laboratory, where additional cultures were made, cover-slips examined, and animals inoculated.

The cover-slips showed large numbers of bacilli having the morphology and staining properties of B. pestis.

Case 4.—February 6, Fong Sha Shong; necropsy by Dr. Kellogg, in the presence of Drs. Novy and Flexner. No evidence of plague.

Case 5.—Wong Chi Lui, February 7; necropsy by Dr. Barker, 6 p. m. Drs. Novy and Kellogg present.

On inspection, there was a swelling in the inguino-femoral region, which, on incision, revealed enlarged glands about the saphenous opening and in the groin. The largest gland had the size of an English walnut and was of a dark reddish-brown color; it was soft and juicy in consistence and mottled with hemorrhages and grayish-white patches of necrosis. The less swollen glands were markedly injected and contained hemorrhages. Periglandular tissue was very œdematous, the fluid running freely from the incision. The spleen was about twice the normal size, soft, and friable.

Cultures were made at once by Dr. Novy and cover-slips about one hour later at the laboratory, where at the same time animals were inoculated with portions of the tissue. The cover-slips from the spleen and the glands showed bacilli presenting all the properties of B. pestis.

Case 6.—February 10, Tom Shom; necropsy by Dr. Kellogg, Drs. Barker and Novy being present.

There was a slight swelling in the right inguino-femoral region which, on incision, revealed slightly œdematous subcutaneous tissue, with slight enlargement of the glands. The largest gland had the size of a filbert, and its surface was dark and hemorrhagic; on section, it presented distinct hemorrhages; other glands were swollen, soft, juicy, and hemorrhagic. The spleen was enlarged, soft, and friable. The examination of the groin showed that the hypodermic puncture made for the withdrawal of fluid for diagnostic purposes during life had failed to enter a lymph gland.

Cover-slips from the spleen and glands showed large numbers of bacilli having the characteristic properties of the B. pestis.

Case 7.—Foong Ah Fong, February 12; necropsy by Dr. Flexner, Dr. Barker present. The spleen only was examined; the organ was enlarged to about twice the normal size and was diminished in consistence. Cover-slips showed a very small number of bacilli of the size of B. pestis, although the characteristic polar staining was not observed. Cultures were made, and a portion of the spleen was introduced subcutaneously into a guinea pig.

Case 8.—Ung Ah Buck; autopsy February 12, at noon, at the undertaking shop of Wing Hai by Dr. Flexner, Drs. Novy, Barker, Kellogg, and Wilson being present. The left side of the face and neck presented a marked diffuse swelling, extending from the angle of the jaw backwards to the sterno-cleido-mastoid muscle and below, almost reaching the clavicle.

On incising this region the parotid gland was first reached; this organ presented a normal appearance. After dissecting away the parotid gland a group of greatly enlarged deep glands surrounding the carotid artery and jugular vein came into view. The periglandular tissue was infiltrated with bloody fluid and presented a sodden appearance. The enlarged glands and portions of the surrounding tissue were excised; the former were found to be swollen (several reaching the size of an English walnut) and to be wholly altered in appearance and consistence. In color they were

[illegible] States at Washington, D. C. [illegible] concerning the health [illegible] the honor to acknowledge the receipt of your letter [illegible] March [illegible] 1901 from Surgeon-General Wyman [illegible] and telegram [illegible] 1901 from Surgeon-General Wyman to Dr. J. H. White [illegible]

[illegible] above-mentioned letter and telegram of Surgeon-General Wyman [illegible] recommended that measures should be taken [illegible] and suspected cases of plague in San Francisco [illegible] all [illegible] therein such measures [illegible] to prevent the spread of plague and [illegible]

[illegible] the existence of plague in San Francisco has been [illegible] recommendation of Surgeon-General Wyman [illegible] that the public health [illegible] protected against [illegible] danger [illegible] existence of plague in San Francisco [illegible] State [illegible] of San Francisco [illegible] State [illegible] San Francisco [illegible] Dr. J. H. [illegible] United States [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] COMMISSION [illegible]

[illegible]

[illegible] as possible after the receipt [illegible] were mailed to the [illegible] Francisco, and [illegible] of State health [illegible] A list of the [illegible] and

femoral region and transferred to nutrient agar. Blood was also drawn from tl of the ear and planted on agar. Stained preparations made from these spe failed to demonstrate the presence of any organism. Cultures developed pyr cocci, but failed to give any indication of pest bacilli. On necropsy the f glands, though characteristic of plague, were found not markedly enlarged. evident that the aspirating needle when introduced had missed the gland p and the failure to isolate the pest bacillus during life in this can thus be exp It should be noted that the periglandular tissue was but very slightly inv Streak preparations made from the hemorrhagic gland showed relatively few plague bacilli. A long, thick bacillus was present in small numbers. Gram' was negative. Streak preparations from the spleen showed the pest bacillu present in large numbers and apparently pure. The organisms occurred singl the bipolar stain, and were decolorized by Gram.

Guinea pig No. 8.—Was inoculated subcutaneously with a portion of the from this case. Six and a half days later, though healthy in appearance, it was A circumscribed caseus local lesion was found. There was a slight glandular e ment on the same side. The spleen was slightly enlarged and showed white n Pest bacilli having the short-rod and oval form were present in small number

Case 7.—Fong Ah Fong, 747 Sacramento street; necropsy February 12. preparations from the spleen revealed the presence of pest bacilli, although were not very abundant; indeed, they were difficult to find in cover slips. T bipolar staining rods and oval roundish forms were, however, found. Gram's was negative.

Streak cultures were made with the fresh spleen on agar slants, and at the time agar plates were made. The agar streaks failed to give an appreciable g but on the plate a colony was found which corresponded to that of the plague lus. On microscopic examination it was observed to consist of small, short nonmotile rods, which decolorized by Gram. The colony transplanted to aga a typical growth of pest bacilli, and this culture was used to inoculate guin No. 10.

Guinea pig No. 9.—Received a portion of the spleen of Fong Ah Fong su neously. It died in four and one-half days. The spleen contained enormous bers of pest bacilli, which stained in the usual bipolar manner, and were decol by Gram. The heart's blood likewise contained the organism. Cultures were on agar from the spleen and heart's blood of this animal. Both gave numerous moist colonies of bacillus pestis.

Guinea pig No. 10.—Was inoculated subcutaneously with the agar culture men above. It was killed two and one-half days later. The spleen showed only but characteristic pest bacilli. Under the skin there was but slight local chang a few typical bacilli were found.

Case 8.—Ung Ah Buck, St. Louis alley; necropsy February 12. Cover-slip rations from the cervical lymph glands showed the presence of several distinct isms. The short, thick, oval forms of the pest bacillus were present in small bers. With them was associated a large, thick bacillus. There were also present resembling the bacillus diphtheriæ and a diplococcus closely resemblin of Fraenkel. The pest bacilli gave the usual bipolar stain with methylene bl with carbolic thionin. Specimens stained by Gram's method showed deeply s diplococci, the other forms being decolorized. Smear preparations from the showed many organisms resembling the bacillus pestis morphologically.

Agar streaks from the fresh spleen gave a number of discrete moist colonies, consisted of large, oval, nonmotile bacilli, occurring singly and only occasion pairs. The streak cultures from the cervical gland also gave numerous is colonies. In both cases the cultures obtained were apparently perfectly pur agreed in every respect with those of plague bacilli. The other bacteria s cover slips did not grow. Agar plates yielded the same results.

Guinea pig No. 11.—Was inoculated subcutaneously with a small portion spleen from above case. In about three days the animal was very sick, a finally killed five and one-half days after inoculation. Bacillus pestis was fo the spleen, and to a less extent in the blood.

The bacteriological examination of the foregoing six cases has, therefore, strated the presence of the bacillus pestis in each.

SIMON FLEXNER.
F. G. NOVY.
LEWELLYS F. BAR

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

The second case was that of a Chinese girl, dead on November 1 at 802 Dupont street. The mucus of the nose and mouth containing countless plague bacilli. The post-mortem examination showed a typical broncho-pneumonia, due to the plague bacillus. This case was referred to in my telegram of November 2, 1900. By reference to my letter under date of December 6 (inadvertently dated November 6) it will be seen that on September 10 a Chinese school teacher died in these premises, in fact in these apartments. Dr. Wilson, the "assistant city physician," gave a death certificate of lobar pneumonia. The clinical history of this case was one of inflammation of the lung; the symptoms were pain in the chest, rapid breathing, cough, and bloody sputum. The illness only lasted a few days. Dr. Wilson believed that it was a case of pneumonic plague, in view of the two cases occurring simultaneously, in the same apartment, and soon after opening up and using the room formerly occupied by the Chinese school teacher.

Another case, which undoubtedly was one of plague of the air passages, was that of Samuel Fluth, a young man of 19, who became ill with sore throat accompanied with high fever and prostration. A homeopathic physician treated the case for nearly a week for typhoid fever, the case becoming all the time worse. A physician was called who diagnosed the malady to be malignant diphtheria. Antitoxin was administered and a trained nurse from the Pacific Hospital placed in charge of the case. A few hours before death, while delirious, the patient coughed and spat in the nurse's face. Two and a half days after, this nurse sickened, and died three days later in the Children's Hospital, despite the fact that an immunizing dose of diphtheria antitoxin was given. The post-mortem examination showed the cause of death to be plague. The infection of the nurse can be traced directly to that of the supposed case of diphtheria.

I still maintain that the number of cases of plague (32) does not represent all the cases occurring in San Francisco during the past year, the true number being, in my opinion, at least double. The bubonic cases have been detected, but the septicæmic and pneumonic cases have in most part been overlooked, the causes of death being ascribed to other diseases.

The reasons for this conclusion are given in my letter of December 6. From my observations made on the cases of plague occurring during the past year I am unable so far to definitely fix the time or determine the conditions when a case of pestis minor becomes pestis major (gravis) or, in other words, when the bubonic type may become pneumonic.

If the Bureau is in possession of any facts or recent literature on this all-important subject, I would respectfully request that it be furnished me for my information and guidance. The advantages here for obtaining this information from the current medical literature are extremely limited, necessitating one to rely on such clinical data as may be offered here.

Respectfully,

J. J. KINYOUN,
Surgeon, M. H. S.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Telegrams.]

AUSTIN, TEX., *March 22, 1901.*

Dr. WALTER WYMAN,
Surgeon-General M. H. S., Washington, D. C.:

Thanks for your telegram of yesterday. I am exceedingly anxious to work in connection with yourself. Failure to publish report of commission has excited great apprehension and causes suspicion that conditions are very bad in San Francisco and elsewhere in California. Please keep me posted by telegrams.

JOS. D. SAYERS, *Governor.*

WASHINGTON, *March 22, 1901.*

His Excellency JOSEPH D. SAYERS, *Governor, Austin, Tex.:*

Will keep you posted, as requested. Matter is just at the stage when definite advice will be given very shortly. Mayor and governor and White are working together to-day.

WYMAN.

San Francisco, Cal., March [illegible]

Surgeon-General WYMAN, Washington, D. C.

[illegible] governor, mayor, and Washington committee, who agreed to raise funds for [illegible] as follows: Disinfect all infected houses, provide hospitals for [illegible] infected houses, and morgue. General Landes [illegible] Quarantine [illegible] department [illegible] and air space. Did not mention Sacramento [illegible] I wanted it [illegible] started [illegible] not in amenable mood today. Auditor [illegible] and stenographer at some $75 monthly. Please [illegible] Barker's assistant [illegible] and inspection detail and to train regular officer [illegible] young [illegible] with good training and tact. [illegible] possible [illegible] Please [illegible] and if possible let [illegible] available [illegible]

WYMAN.

Washington, D. C., March [illegible]

Surgeon WYMAN, San Francisco, Cal.:

[illegible] with [illegible] Sacramento [illegible] stenographer [illegible] WYMAN [illegible] young office [illegible] WYMAN [illegible] with much satisfaction. [illegible]

WYMAN.

SURVEILLANCE OF CHINESE IN PACIFIC COAST TOWNS.

March 23 a letter, of which the following [illegible] copy, was mailed [illegible] health authorities of all the principal towns on the Pacific coast, [illegible] a view to bringing about a general watchfulness for any possible [illegible] infection which might [illegible] the Chinese inhabitants of [illegible]. Following the copy of the letter [illegible] and answers received thereto, showing [illegible] the [illegible] referred to.

[illegible]

wish to state that I have no reason for suspecting the existence of plague in your city. The project is one of precaution, justified, I believe, by the history of the disease in San Francisco.

I would be pleased to hear from you on the subject, and should you need the aid of this Bureau in the employment of some bacteriologist who might be entirely agreeable, the Bureau is ready to assist to this extent or in other ways that may seem to be necessary.

Respectfully,

WALTER WYMAN,
Surgeon-General M. H. S.

[Synopsis of answers to above letter.]

Portland, Oreg., March 28, 1901.—Two thousand to 3,000 Chinese in this city, the number depending on the time of year, there being fewer in the hop-picking season and when the canneries are in operation. Eleven Chinese have died during this month, several deaths resulting from pneumonia and several from consumption. Those who die unattended by a white physician are seen by the coroner before burial, but no necropsies are performed. Conditions at Chinese joss house very bad.

April 5, 1901.—Commissioner coroner, and city physician met and decided to perform a necropsy on any Chinaman dying in the city during the following month, and also, in case of anything suspicious being discovered, to take advantage of the Bureau's offer to make a bacteriological examination. Steps to be taken by the health commissioner to improve sanitary conditions of joss house by painting and increasing the lighting and ventilating facilities. (Report from Assistant Surgeon Fox.)

Tacoma, Wash., March 30, 1901.—Has no Chinatown. Only six Chinese in city. Chinese are not allowed to settle in the city. Quite a number of Japanese, whose quarters are examined weekly. (Report from Acting Asst. Surg. T. J. Schug, who is also health commissioner.)

Seattle, Wash., March 30, 1901.—No deaths have occurred among Chinese in Seattle since November, 1900. (Report from Assistant Surgeon Robinson.)

San Diego, Cal., March 30, 1901.—Board of health promises to provide for post-mortem examinations, including bacteriological examination of all Chinese dying in San Diego. But one Chinese death in last year, cause of death being tuberculosis. (Report from Assistant Surgeon Decker.)

Los Angeles, Cal., April 1, 1901.—Board of health will establish thorough inspection of Chinese quarters and make bacteriological examination of all dead Chinamen. Fifty-seven Chinese deaths since January, 1900, all from well-recognized causes. (Report from Health Officer Powers.)

Port Townsend, Wash., April 2, 1901.—Chinese population small. Only two deaths among Chinese in last six months, and those under circumstances in no way suspicious. (Report from Passed Assistant Surgeon Gardner.)

CORRESPONDENCE—Continued.

[Telegrams.]

WASHINGTON, *March 24, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Wired Flint, but have not yet received reply. Flexner thinks he will gladly accept. I will pick out the best young men I can for you unless I hear from you as to your choice. Until they arrive, authorized to draw on marine hospital. Gassaway notified. You are authorized to accept any reasonable proposition for office rent, promptly reporting. Inform me soon as possible of facts concerning Sacramento, either by wire or letter. Letter mailed you to-day.

WYMAN.

SAN FRANCISCO, *March 24, 1901.*

Surgeon-General WYMAN, *Washington:*

After report of commission (think it was February 24) one patient on passenger train from Sacramento to San Francisco died; think it was next day. Diagnosis confirmed by bacteriological examination. Flexner and Barker know the facts. * * * [Here are named officers desired as assistants.] Want to use bacteriological

perhaps temporarily at San Fran[illegible] quarantine [illegible] arranged. Site selected for detention and other purposes [illegible] take them, expected to organize [illegible]

W[illegible]

W[illegible] M[illegible]

[illegible] Wyman, San Francisco, Cal.

[illegible] temporarily at San Francisco quarantine [illegible]

W[illegible]

W[illegible] M[illegible]

[illegible] Wyman, San F[illegible]

[illegible] accepted was ordered [illegible] M[illegible] W[illegible] there if necessary [illegible] Dr. H[illegible] and Dr. Kirk[illegible] if necessary [illegible] W[illegible] arrange [illegible] San Fran[illegible]

W[illegible]

[illegible] M[illegible]

[illegible] W[illegible] H[illegible]

[illegible]

W[illegible]

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[illegible] M[illegible]

[illegible]

[illegible]

[illegible] W[illegible]

[illegible] regarding [illegible]

[illegible] regarding [illegible]

[illegible]

W[illegible]

[illegible]

identified as plague, was published in Public Health Reports of March 22, 1901, and in the following week a synopsis of their findings was prepared and published, and the full report was published in the Public Health Reports of April 19. Later their report was published in pamphlet form and distributed throughout the country.

The following letters conveyed the report to the governor of California and mayor of San Francisco:

[Letters.]

TREASURY DEPARTMENT,
Washington, March 14, 1901.

SIR: Referring to my telegram of January 30, stating that the results of the findings of the Treasury commission would be made known to you, I am informed by the Surgeon-General of the Marine-Hospital Service that the main facts as found by the commission were reported to you verbally under instructions from himself on February 20.

In addition to this verbal information, however, I desire to transmit to you herewith a complete copy of the report signed by Drs. Flexner, Novy, and Barker, composing the commission, and in transmitting the same I wish to express my gratification at the result of the conferences held on March 9 by this Department with your representatives, who will doubtless place in your hands the correspondence between themselves and this Department, showing the arrival at a mutual agreement.

Respectfully,

O. L. SPAULDING, *Acting Secretary.*

Hon. HENRY T. GAGE,
Governor of California, Sacramento, Cal.

TREASURY DEPARTMENT,
Washington, March 14, 1901.

SIR: Although, in accordance with instructions from the Surgeon-General of the Marine-Hospital Service, the Treasury commission, consisting of Drs. Flexner, Novy, and Barker, has reported to you verbally the results of its investigations at San Francisco, I desire to transmit to you herewith a copy of the full report of this commission.

Respectfully,

O. L. SPAULDING,
Acting Secretary.

The MAYOR OF SAN FRANCISCO, CAL.

The following letter was sent to State health authorities and others interested, in the United States:

[Letter.]

(CONFIDENTIAL.) TREASURY DEPARTMENT, MARINE-HOSPITAL SERVICE,
Washington, D. C., March 15, 1901.

DEAR DOCTOR: In accordance with custom in the editing of the Public Health Reports, on the 1st of January, new tables are published, and, accordingly, in the first week's issue for this year no special mention of plague was made, though the plague was duly reported in previous issues, and in the Public Health Reports for December 28, 1900 (see table), 22 deaths are reported as having occurred in San Francisco between March 7 and December 7, 1900. Subsequent developments have in no wise thrown any doubt upon the nature of these cases, but have been confirmatory.

Since January there have been officially reported 9 cases (all fatal) in Chinatown, San Francisco, on the following dates: January 6, 1 case; January 15, 2 cases; February 5, 1 case; February 6, 1 case; February 7, 1 case; February 10, 1 case; February 11, 1 case; February 12, 1 case. An additional case has also been reported as occurring during the week ended March 2, 1901, making 10 cases (and deaths) in all.

The Bureau and Treasury Department are endeavoring to bring about harmonious action between the State and city boards of health, and the mayor of San Francisco and governor of California. The governor of California in his message to the legislature January 8, 1901, denied absolutely the existence of plague in California, and finally sent a commission of five citizens to Washington to confer concerning the matter. These gentlemen represented the governor, the mayor, the press, the trans-

[illegible]

was duly reported in previous issues and in the Public Health Reports for December 28, 1900 (see table), 22 deaths are reported as having occurred in San Francisco between March 7 and December 7, 1900. Subsequent developments have in no wise thrown any doubt upon the nature of these cases, but have been confirmatory.

Since January 1, 1901, there have been officially reported 9 cases (all fatal) in Chinatown, San Francisco, on the following dates: January 6, 1 case; January 1[illegible] 2 cases; February 5, 1 case; February 6, 1 case; February 7, 1 case; February 1[illegible] 1 case; February 11, 1 case; February 12, 1 case. An additional case has also been reported as occurring during the week ended March 2, 1901, making 10 cases (a[illegible] deaths) in all.

A thorough understanding has been arrived at between the State of California and city of San Francisco and the Treasury Department, by which the necessary work of inspection, isolation, and disinfection will be immediately pushed under the supervision of an officer of the Marine-Hospital Service who is now on the ground.

In this connection I desire to invite your attention to Public Health Reports issued March 15, containing (on p. 539) a study of the epidemic of plague at Beirut in 1900 by Mr. H. De Brun, and to the closing paragraph of this article, showing the distinction to be drawn with regard to danger and measures to be taken between the pneumonic and bubonic forms of the disease. So far as known at the present time, the disease in San Francisco is of the bubonic form.

Having given you this information, and necessary preventive measures being now taken, I have to state that in the interest of the work now going on at San Francisco it is desirable that no publication be made at the present time of the facts which I have just given you.

Respectfully,

W. WYMAN,
Surgeon-General M. H. S.

CORRESPONDENCE—Continued.

[Telegrams.]

SAN FRANCISCO, CAL., *March 20, 1901.*

Surgeon-General WYMAN, *Washington:*

No orders received. Have you sent them?

WHITE.

WASHINGTON, *March 20, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

See the mayor and also John P. Young, who was chairman of commission appointed by governor and mayor to confer with Washington authorities, and advise with them as representatives of State and city, and report what action is being taken. You are to act as adviser under the terms of the correspondence between the commission and the Department dated March 9 and 11, copies of which were mailed you. Please acknowledge their receipt. Immediate action was agreed to. You will assist in any manner possible, advise as to what should be done, and keep Bureau informed.

WYMAN.

SAN FRANCISCO, CAL., *March 20, 1901.*

Surgeon-General WYMAN, *Washington:*

Telegram received. Will see mayor, but defer seeing other party who has recently editorially made another attack. Clipping sent you. If you directly order it, will see him under protest. Correspondence received.

WHITE.

WASHINGTON, *March 21, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Under circumstances, use your own discretion about calling upon party mentioned in your telegram of 20. Wire date of clipping, and if possible outline nature of ack in editorial.

WYMAN.

[illegible]

WYMAN,

[illegible]

[illegible] to Texas State health [illegible] the [illegible] has [illegible] little confidence in the [illegible] authorities [illegible] I have a positive [illegible] from you that this State will [illegible] the [illegible] all immediately order the most stringent quarantine regulations. Please [illegible] immediately as I will take [illegible]

[illegible]

[illegible]

WYMAN [illegible]

[illegible] received [illegible] Texas [illegible] I have a positive [illegible] from you that this State [illegible] all immediately order the [illegible] Please [illegible] immediately as I [illegible] it to the [illegible] [illegible] Texas [illegible] have [illegible]

WYMAN

[illegible]

[illegible] Journal [illegible]

[illegible] WYMAN [illegible] the Treasury [illegible]

WYMAN [illegible]

[illegible] WYMAN [illegible]

[illegible]

The second case was that of a Chinese girl, dead on November 1 at 802 Dupont street. The mucus of the nose and mouth containing countless plague bacilli. The post-mortem examination showed a typical broncho-pneumonia, due to the plague bacillus. This case was referred to in my telegram of November 2, 1900. By reference to my letter under date of December 6 (inadvertently dated November 6) it will be seen that on September 10 a Chinese school teacher died in these premises, in fact in these apartments. Dr. Wilson, the "assistant city physician," gave a death certificate of lobar pneumonia. The clinical history of this case was one of inflammation of the lung; the symptoms were pain in the chest, rapid breathing, cough, and bloody sputum. The illness only lasted a few days. Dr. Wilson believed that it was a case of pneumonic plague, in view of the two cases occurring simultaneously, in the same apartment, and soon after opening up and using the room formerly occupied by the Chinese school teacher.

Another case, which undoubtedly was one of plague of the air passages, was that of Samuel Fluth, a young man of 19, who became ill with sore throat accompanied with high fever and prostration. A homeopathic physician treated the case for nearly a week for typhoid fever, the case becoming all the time worse. A physician was called who diagnosed the malady to be malignant diphtheria. Antitoxin was administered and a trained nurse from the Pacific Hospital placed in charge of the case. A few hours before death, while delirious, the patient coughed and spat in the nurse's face. Two and a half days after, this nurse sickened, and died three days later in the Children's Hospital, despite the fact that an immunizing dose of diphtheria antitoxin was given. The post-mortem examination showed the cause of death to be plague. The infection of the nurse can be traced directly to that of the supposed case of diphtheria.

I still maintain that the number of cases of plague (32) does not represent all the cases occurring in San Francisco during the past year, the true number being, in my opinion, at least double. The bubonic cases have been detected, but the septicæmic and pneumonic cases have in most part been overlooked, the causes of death being ascribed to other diseases.

The reasons for this conclusion are given in my letter of December 6. From my observations made on the cases of plague occurring during the past year I am unable so far to definitely fix the time or determine the conditions when a case of pestis minor becomes pestis major (gravis) or, in other words, when the bubonic type may become pneumonic.

If the Bureau is in possession of any facts or recent literature on this all-important subject, I would respectfully request that it be furnished me for my information and guidance. The advantages here for obtaining this information from the current medical literature are extremely limited, necessitating one to rely on such clinical data as may be offered here.

Respectfully,

J. J. KINYOUN,
Surgeon, M. H. S.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

[Telegrams.]

AUSTIN, TEX., *March 22, 1901.*

Dr. WALTER WYMAN,
Surgeon-General M. H. S., Washington, D. C.:

Thanks for your telegram of yesterday. I am exceedingly anxious to work in connection with yourself. Failure to publish report of commission has excited great apprehension and causes suspicion that conditions are very bad in San Francisco and elsewhere in California. Please keep me posted by telegrams.

JOS. D. SAYERS, *Governor.*

WASHINGTON, *March 22, 1901.*

His Excellency JOSEPH D. SAYERS, *Governor, Austin, Tex.:*

Will keep you posted, as requested. Matter is just at the stage when definite advice will be given very shortly. Mayor and governor and White are working together to-day.

WYMAN.

San Francisco, Cal., March [illegible]

Surgeon-General WYMAN, Washington:

Sub-committee, mayor, and Washington committee, who agreed to raise funds for immediate work as follows: Disinfect all infected houses, provide hospitals for suspects, detention houses, and morgue. General disinfection Chinatown with betterment of light and air space. Did not mention Sacramento lots as I wanted this well started and governor is not in amenable mood today. Authorize office and stenographer either at cost, $25 monthly. Please send Dr. [illegible] of Chicago, Barker's assistant, for subpœnas and inspection detail and to train regular officer; also force of best young officers with good training and tact. Will do all possible to quick work. Please act promptly, and if possible let me know from available youngsters.

WHITE.

Washington, D. C., March [illegible]

Surgeon WHITE, San Francisco, Cal.:

Office authorized. Nominate and place stenographer [illegible]. Will send Dr. [illegible] as manager of young officers desired. Will write again [illegible]. Work to certain [illegible] received with much satisfaction. Director [illegible] congratulations.

WYMAN.

SURVEILLANCE OF CHINESE IN PACIFIC COAST TOWNS.

On March 23 a letter, of which the following is a copy, was mailed to the health authorities of all the principal towns on the Pacific coast, with a view to bringing about a general watchfulness for any possible plague infection which might exist among the Chinese inhabitants thereof. Following the copy of the letter will be found a synopsis of the answers received thereto, showing the conditions existing in the towns referred to:

[illegible]

WASHINGTON, *April 19, 1901*.

Surgeon WHITE, *San Francisco, Cal.:*

Have wired Scott, who is now in New York, contents your telegram 18th, requesting him to take action.

WYMAN.

NEW YORK, *April 19, 1901*.

Surgeon-General WYMAN, *Washington:*

I have your dispatch and have telegraphed committee. You can rest assured matter will be taken hold of.

HENRY T. SCOTT.

WASHINGTON, *April 19, 1901*.

Surgeon WHITE, *San Francisco, Cal.:*

Scott has wired committee, and says can rest assured matter will be taken hold of.

WYMAN.

WASHINGTON, *April 22, 1901*.

WERTENBAKER, *Marine-Hospital Service, New Orleans, La.:*

For your information, and to answer possible inquiries, commission's full report on plague in San Francisco is published in Public Health Reports April 19. Cases they found were published March 22 and statement as to their work March 29. Full publication delayed for purpose avoiding newspaper excitement and to facilitate progress of the work in San Francisco. No agreement was made to suppress any facts or reports.

WALTER WYMAN.

WASHINGTON, *April 22, 1901*.

Surgeon WHITE, *San Francisco, Cal.:*

Referring to your letter April 10, paragraphs 5 and 6, it has been suggested by certain parties familiar with the situation that if the radical measures concerning certain houses must be adopted, it would be advisable, if possible, to leave such measures until later, as the inference might be that these radical measures are generally necessary. It might be possible to adopt some measures regarding these houses without taking extreme measures at present time. This for your consideration. Radical measures toward the start might excite opposition which would not exist later on.

WYMAN.

SAN FRANCISCO, CAL., *April 23, 1901*.

Surgeon-General WYMAN, *Washington:*

Referring yesterday's telegram, will, if so directed, treat all houses in uniform manner, leaving drastic measures for final adoption. Doing this will necessitate refusal to give State a certificate of satisfaction as to each block, which certificate State agent very anxious to get. Please wire me forbidding issuance of certificate of satisfaction under circumstances.

WHITE.

WASHINGTON, *April 23, 1901*.

Surgeon WHITE, *San Francisco, Cal.:*

Yesterday's telegram as to deferring the more drastic measures to toward the end was sent simply for consideration at another's suggestion. I can not direct in the matter, and in view of your telegram to-day am inclined to believe the suggestion is not a good one. Though possibly feasible in exceptional cases, it may not be in accord with sound sanitation principles.

WYMAN.

San Francisco, Cal., [illegible]

Surgeon-General WYMAN, Washington:

[illegible] Chinese girls being made contraband to our work embarrassing and [illegible] make Chinese law [illegible] and attribute raids to Service. Reported [illegible] are instigated from either Department of Justice or Immigration Bureau [illegible] remission of this work.

WHITE.

Washington, April [illegible], 1907.

WHITE, San Francisco, Cal.:

[illegible] to your telegram April [illegible] Department of Justice will wire today to discourage to stop the raids.

WYMAN.

[illegible]

DEPARTMENT OF JUSTICE,
Washington, April [illegible], 1907.

[illegible] acknowledging receipt of your letter of yesterday suggesting that arrests of girls in San Francisco are embarrassing the work of the Marine-Hospital [illegible] eradicating the bubonic plague in Chinatown, San Francisco. I have the honor to say that I have directed the United States attorney by telegraph to desist for the present, but to proceed in the course of law upon the arrests already [illegible].

[illegible] to be added that I shall be pleased to be advised when the work of preventing [illegible] among the alleged slave traffic [illegible] girls with [illegible] Treasury Department [illegible] this Department have [illegible] undertaken [illegible] the State [illegible], may properly be [illegible].

Very respectfully,

[illegible]
Acting Secretary.

SECRETARY OF THE TREASURY.

[illegible]

San Francisco, Cal., [illegible]

Surgeon-General WYMAN, Washington:

[illegible] a client from [illegible] Chinatown taken. [illegible] a white [illegible] blood specimen taken. [illegible] present.

WHITE.

Washington, [illegible]

WHITE, San Francisco, Cal.:

[illegible] that time [illegible] if possible [illegible] such any surveillance [illegible].

WYMAN.

San Francisco, Cal., [illegible]

Surgeon-General WYMAN, Washington:

[illegible] regarding [illegible] will require further [illegible] raids. Will report promptly [illegible].

WHITE.

APRIL, 1901.

[Telegrams.]

WASHINGTON, *April 1, 1901.*

HASTINGS, *Marine-Hospital Service, Los Angeles, Cal.:*

Confidential. Plague was rumored three months ago Bakersfield. Afterwards declared to be vicious pneumonia. Persistent rumors again, and that local China-town was burned last week and no mention made in press. Dr. Cross, of Visalia, believes plague is now present in Bakersfield. Victims largely white, and type pneumonic. Proceed there immediately and quietly investigate rumor.

WYMAN.

WASHINGTON, *April 1, 1901.*

Surgeon WHITE, *Occidental Hotel, San Francisco, Cal.:*

In mine regarding Taylor. I meant Seattle. Have ordered Hastings to quietly investigate rumor regarding Bakersfield.

WYMAN.

WASHINGTON, *April 1, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Collector, San Francisco, authorized to pay payrolls, subsistence, and traveling expenses, and materials purchased to suppress plague on your certification. Warrant, $2,500, will be mailed collector to-morrow. Letter follows to-day. Officers detailed to you on special duty.

WYMAN.

SAN FRANCISCO, CAL., *April 2, 1901.*

Surgeon-General WYMAN, *Washington:*

Met the governor, the mayor, April 2. Arrangements have been made State to disinfect San Francisco, providing morgue, hospital, barracks, crematories, and operate same work. Probably it can be April 3. All interested promise lose no time to obtain best possible results. I should have William Lindgren and 4 additional officers experienced in disinfection. There are no experienced disinfectors available for employment, therefore all will have to be taught, and the best available men needed to push work rapidly. Request authority to employ several Orientals as guides and interpreters. I understand State will also employ certain number. Good policy in both cases, also facilitating work. Misunderstood yours of March 30. Saw party yesterday. Will get full information to-night and transmit.

WHITE.

WASHINGTON, *April 3, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Telegram April 2 received. Will send 2 additional officers at once. Others may be sent later. Will send, if requested, 2 hospital stewards familiar with disinfection, as Peck and Kolb. On requisition will also send 3 to 6 hospital attendants from quarantine station familiar with disinfection. Lindgren tied up with Pan-American Exposition. Rosenau states J. McFarland, 225 Tenth avenue, Richmond district, San Francisco, faithful and experienced in disinfection; formerly commander of the launch.

WYMAN.

WASHINGTON, *April 3, 1901.*

Hon. JOSEPH D. SAYERS, *Governor, Austin, Tex.:*

Mailed you yesterday Public Health Reports, giving statement of findings of commission and statement of conditions. Work has begun in earnest on broad scale with marked unanimity between State, city, and Federal authorities. Will write.

WYMAN.

BAKERSFIELD, CAL., April [illegible], [illegible]

General WYMAN, Washington:

[illegible] apparently various pneumonia began four months ago, now [illegible] Approximately 200 cases and [illegible] deaths not confined to any [illegible] Am assisted by all authorities in making thorough inspection without [illegible] Fire in Chinatown accidental. Unless further developments will leave [illegible]. Letter report follows.

HASTINGS.

ANGEL ISLAND, CAL., April [illegible], [illegible]

General WYMAN, Washington:

[illegible] case of plague. Chinese dead April [illegible] found yesterday. Pacific street, [illegible] type. [illegible] examination made laboratory here.

KINYOUN.

WASHINGTON, [illegible]

WHITE, San Francisco, Cal.:

[illegible] reports [illegible] pneumonia began [illegible] disappeared, [illegible] to any class or age. Fire in Chinatown was accidental. Dr. [illegible] reports [illegible] of Seattle informs him no deaths [illegible] November [illegible].

WYMAN.

WASHINGTON, [illegible]

WHITE, San Francisco, Cal.:

[illegible] to investigate at Bakersfield [illegible] April [illegible]. Has [illegible] Young and [illegible] room. Will [illegible] report.

WYMAN.

ON SUSPICIOUS CASES AT BAKERSFIELD, SHOWING THEM TO BE APPARENTLY CASES OF ACUTE LOBAR PNEUMONIA.

It has been by the foregoing telegrams, suspicious cases of pneumonia [illegible] continually reported at Bakersfield, Cal., and finally, [illegible] Assistant Surgeon Hastings was ordered to that town to [illegible] thorough inspection of conditions and to report the [illegible]. Following Hastings's report, stating that the cases reported were apparently lobar pneumonia.

[illegible]

have the honor to report [illegible] Bakersfield [illegible] was ordered by telegram [illegible] report [illegible] investigation as follows:

[illegible] at Bakersfield [illegible] of the medical profession [illegible] at least [illegible] Seattle [illegible] and reported [illegible] the [illegible] Bakersfield [illegible]. A post-mortem [illegible] was ordered [illegible] began about [illegible] estimate that [illegible] the autopsies were [illegible] that [illegible] bubonic type of plague. A post-mortem [illegible]

January 15. No [illegible] were [illegible]

ination states that the appearances were those of a virulent septic pneumonia. There was no large amount of lung tissue involved. The bases of both lungs were deeply congested and presented a partly gangrenous appearance; the pleuræ were adherent and covered with a thick, tenaceous exudate, sero-purulent in character. The pericardium presented a similar appearance; the heart was covered, especially the lower part, with thick flakes of exudate. There was very little fluid in the pleural cavities. The glands around the bronchi were slightly swollen and soft, about the size of the end of the little finger. The spleen was enlarged and soft; the other abdominal organs were normal. The base of the brain was covered with the same exudate as were the pericardium and pleura. Death had ensued in three days. The patient's nurse, a man, was taken sick and died in two days. Specimens were taken from the lungs, including the exudate, the heart, liver, spleen, and kidneys, and sent to the State board of health for examination. No report was made for some time. In the meantime a representative of the State board of health of Texas came down from San Francisco stating that the examination proved suspicious of plague; and in a few days Texas quarantined against Bakersfield. The quarantine was removed in two or three days. The city health officer subsequently wrote for information as to the findings from the examination of the specimens sent, and was informed that the disease was a septic pneumonia. This ended the investigations.

The symptoms usually were those of acute lobar pneumonia—the onset sudden and ushered in by a chill. In the more severe cases, where death resulted quickly, there was little and sometimes no appreciable consolidation; slight cough, often very little expectoration; usually, but not always, "rusty" sputum; high fever, considerable delirium, and rapid failure of the heart. The bronchial glands were found in fatal cases to be swollen; also the cervical and abdominal, but never very large. In some cases the inguinal glands were enlarged also. The lymphatic glands of this region and the neck, however, did not feel soft or appear inflamed at all, but rather appeared to be like those from syphilis or scrofula. There were approximately 200 cases and 90 deaths.

The records of the coroner's office show: December, 32 deaths from pneumonia, out of a total of 64; January, 38 deaths from pneumonia, out of a total of 77; February, 16 deaths from pneumonia, out of a total of 32; March, 4 deaths from pneumonia, out of a total of 30. The disease was not confined to any age, sex, or race. The Chinese, of which there are about 800 in a total population of about 9,000, suffered but slightly. Since January there has not been a death among them from "pneumonia," judging from the records.

The epidemic came suddenly, about the time of the prevalence of grippe elsewhere, and some of the physicians state that symptoms of grippe frequently preceded the initial chill of the pneumonia. The epidemic has died out on the advent of mild weather, without any attempt at disinfection or quarantine.

My personal observations consisted of examining a convalescent pneumonic patient of one physician, looking through the county hospital, a careful inspection of Chinatown, and witnessing the post-mortem examination above referred to. The latter case gives the following history: Patient was a male, a native of California, resident of Bakersfield, aged 31 years; admitted to the hospital March 26; died April 2. For a week before admission had complained of pain in back, head, and legs. The day of admission had a chill, slight pain in chest, on the right side; no cough, no expectoration, but very rapid breathing and general appearance of being very sick. After admission to hospital there was slight cough and very little expectoration; temperature was high throughout, and during the last forty-eight hours the patient was delirious. The post-mortem examination showed consolidation of the right lower lobe, dry pleurisy, with adhesions of both sides; very little fluid exudate, no fibrinous exudate either of the pleura or pericardium. The bronchial glands were slightly enlarged and soft; the glands elsewhere were normal. The other post-mortem appearances were negative. Sections of the lung, glands, liver, and spleen were sent to Surg. J. J. Kinyoun, at San Francisco, for examination.

From personal observations, which were limited, and chiefly from the experiences of the local physicians, and from the course of the epidemic, I am of the opinion that the disease was epidemic pneumonia of the acute lobar variety. The rapidly fatal cases, with symptoms of intense toxæmia, presented such small involvement of the lungs probably on account of the rapid invasion by the pneumococci.

The severity of the disease may, in part, be accounted for by the local conditions. Bakersfield is a "boom" city, where conditions of life are hard; the weather during the past winter has been very bad, and men of all sorts have been crowded together, with very poor sanitary surroundings.

Very respectfully,

HILL HASTINGS,
Assistant Surgeon, M. H. S.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

CORRESPONDENCE—Continued.

[illegible]

[illegible], April [illegible]

Surgeon-General WYMAN, Washington:

President of the city board of health reports another case of plague, not [illegible] died April 6, after illness of four days in San Francisco, arriving here from Santa Barbara [illegible]. Spleen shows characteristic organism.

KINYOUN.

WASHINGTON, April [illegible]

[illegible], San Francisco, Cal.:

[illegible] death from plague at San Francisco April [illegible] of the State board of health. [illegible] days after [illegible] Santa [illegible] Proceed Santa Barbara [illegible] and [illegible] including [illegible] Chinese residents.

WYMAN.

SAN FRANCISCO, CAL., April [illegible]

Surgeon-General WYMAN, Washington:

[illegible] plague. Have [illegible] attacks, [illegible]. [illegible] inspected [illegible]. Six [illegible] and [illegible] Judge Magee [illegible] work will be [illegible] effectiveness [illegible] Chinese are [illegible] or [illegible]

WYMAN.

WASHINGTON, April [illegible]

Surgeon [illegible], San Francisco, Cal.:

[illegible] Have [illegible] and [illegible]

WYMAN.

SAN FRANCISCO, CAL., April [illegible]

Surgeon-General WYMAN, Washington:

[illegible] inspected [illegible] Dr. [illegible] [illegible]

WYMAN.

SAN FRANCISCO, CAL., April [illegible]

Surgeon-General WYMAN, Washington:

[illegible] April [illegible] showing [illegible] satisfactorily.

WYMAN.

SAN FRANCISCO, CAL., April [illegible]

Surgeon [illegible], San Francisco, Cal.:

[illegible] Have [illegible] inspected with [illegible] April [illegible] showing [illegible] satisfactorily.

WYMAN.

[Letter.]

SAN FRANCISCO, CAL., *April 10, 1901.*

SIR: 1. I have the honor to invite your attention to the inclosed clipping, which brings to light new difficulties encountered in contending with the situation here.

2. If this newspaper clipping proves to be correct, as I have every reason to believe that it is, the modus vivendi under which we are operating will be destroyed and a new arrangement necessary.

3. It had been agreed that the city was to provide for hospitals, detention barracks, a morgue, laboratory, a garbage destroyer, and similar matters, and to pay the operating expenses of the same, while the State was to provide a disinfecting corps and materials to do the work of cleaning and disinfecting Chinatown under my direction.

4. I am inclined to think that the State will refuse to comply with its obligation when it becomes known that the city will be unable to do so.

5. Work was begun on Monday morning, as I telegraphed you, and it is possible to cleanse and disinfect the better class of Chinese houses after a vast deal of persuasion and insistence applied both to the disinfecting corps and the Chinese, but there are certain houses in

6. The block upon which we are now engaged, and in almost every block in Chinatown, which I frankly believe will have to be gutted of their total contents and such contents burned before we can have any assurance that the contagium has been removed. There has probably been an average of two cartloads of filth removed from each large house, and much more remains. I yesterday inspected rooms in the cellars of some of the worst districts, which I do not believe to have been entered before by any white man in many months, and some of these rooms, practically underground and separated from either street or alley by flanking rooms on either side, are absolutely devoid of light and ventilation, are dirty beyond anything that may be imagined by the Caucasian mind, and filled with a stifling odor suggesting months of opium smoking, with occasional urination upon the floors. I can best describe it by saying that it is the accentuated odor of a rat den.

7. The State officials, who are undertaking to do this work under my directions, claim that they have no authority for gutting these premises; state that it would be an interference with personal rights, and that it will cost a great deal of money and possibly bring about injunctions through the courts. Many of these dens are so constructed that gaseous disinfection will be of no avail, and the only possible means of removing infection from them will be by saturating floors, walls, ceiling, furniture, clothing, and every other possible contents with bichloride of mercury.

8. It is possible that I may be compelled to telegraph you for instruction in this matter within a few days, and I therefore write this letter, not with a view to request present action on your part, but in order that, should such action become necessary, you may fully understand my meaning when I do telegraph.

9. With regard to the inspection I have to report that an endeavor to deceive me is being made by the Chinese Six Companies, who have so far shown an average of 2½ persons sick per day, despite my protest. I yesterday informed Mr. Chew Wo, secretary of the Six Companies, that inasmuch as he had agreed to deal with me in the same fair and honest manner in which I was dealing with him, and inasmuch as I was fully aware that out of a population of 15,000 persons under ordinary conditions there would be at least 150 sick, I demanded of him that if he proposed to deal fairly with me he show me the 150 sick in question. He thereupon agreed to call a meeting of the Six Companies and lay the matter before them, insisting that the sick must be shown. I am now awaiting the result of that meeting.

10. This letter being only one for the information of the Bureau, I shall speak quite plainly about this matter, both as to inspection and disinfection, and say that from present appearances the thorough cleansing of Chinatown appears to be almost a physical impossibility, and that I am certain of the absolute dishonesty of the Chinese in the promises that they have made, and well satisfied that they will fulfill nothing that they can possibly avoid.

11. I shall in this instance, as I have ever done, perform the duties assigned to me to the best of my ability, but feel that it is only justice not only to myself but to the Service to say that I do not feel hopeful regarding the results.

Respectfully, yours,

J. H. WHITE, *Surgeon, M. H. S.*

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

The inclosure referred to in the above letter was a clipping from the San Francisco Call of April 10, stating that the city auditor had declared the appropriations made by the board of supervisors for cleaning

[illegible] and the erection of a contagious-disease hospital to be

Telegrams

[illegible]

WHITE, *San Francisco, Cal.*

[illegible] as to additional medical officers you may need to prosecute your [illegible] has found it very difficult to get additional officers immediately [illegible] have been ordered to return from abroad and will soon arrive

[illegible]

[illegible]

WHITE, *San Francisco, Cal.*

[illegible] anything further regarding [illegible]

[illegible]

[illegible]

Surgeon-General WYMAN, *Washington*

[illegible] telegrams received yesterday [illegible] to last inquiry [illegible] left here Saturday [illegible]

[illegible]

[illegible]

WHITE, *San Francisco, Cal.*

[illegible]

[illegible]

[illegible]

Surgeon-General WYMAN, *Washington*

[illegible]

[illegible]

[illegible]

WHITE, *San Francisco, Cal.*

[illegible]

[illegible]

WASHINGTON, *April 19, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Have wired Scott, who is now in New York, contents your telegram 18th, requesting him to take action.

WYMAN.

NEW YORK, *April 19, 1901.*

Surgeon-General WYMAN, *Washington:*

I have your dispatch and have telegraphed committee. You can rest assured the matter will be taken hold of.

HENRY T. SCOTT.

WASHINGTON, *April 19, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Scott has wired committee, and says can rest assured matter will be taken hold of.

WYMAN.

WASHINGTON, *April 22, 1901.*

WERTENBAKER, *Marine-Hospital Service, New Orleans, La.:*

For your information, and to answer possible inquiries, commission's full report on plague in San Francisco is published in Public Health Reports April 19. Cases they found were published March 22 and statement as to their work March 29. Full publication delayed for purpose avoiding newspaper excitement and to facilitate progress of the work in San Francisco. No agreement was made to suppress any facts or reports.

WALTER WYMAN.

WASHINGTON, *April 22, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Referring to your letter April 10, paragraphs 5 and 6, it has been suggested by certain parties familiar with the situation that if the radical measures concerning certain houses must be adopted, it would be advisable, if possible, to leave such measures until later, as the inference might be that these radical measures are generally necessary. It might be possible to adopt some measures regarding these houses without taking extreme measures at present time. This for your consideration. Radical measures toward the start might excite opposition which would not exist later on.

WYMAN.

SAN FRANCISCO, CAL., *April 23, 1901.*

Surgeon-General WYMAN, *Washington:*

Referring yesterday's telegram, will, if so directed, treat all houses in uniform manner, leaving drastic measures for final adoption. Doing this will necessitate refusal to give State a certificate of satisfaction as to each block, which certificate State agent very anxious to get. Please wire me forbidding issuance of certificate of satisfaction under circumstances.

WHITE.

WASHINGTON, *April 23, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Yesterday's telegram as to deferring the more drastic measures to toward the end was sent simply for consideration at another's suggestion. I can not direct in the matter, and in view of your telegram to-day am inclined to believe the suggestion is not a good one. Though possibly feasible in exceptional cases, it may not be in accord with sound sanitation principles.

WYMAN.

San Francisco, Cal., [illegible]

General Wyman, Washington.

[illegible] Chinese girls being made confidential to our work embarrassing and prevent make Chinese lose confidence in and attribute raids to Service. Reported are instigated from either Department of Justice or Immigration Bureau [illegible] remission of this work

White.

Washington, April [illegible]

White, San Francisco, Cal.

[illegible] telegram April [illegible] Department of Justice will wire today to discontinue [illegible] stop the raids

Wyman.

Letter.

Department of Justice,
Washington, April [illegible]

Acknowledging receipt of your letter of yesterday suggesting the arrests of girls in San Francisco are embarrassing the work of the Marine-Hospital Service [illegible] the Chinese plague [illegible] San Francisco. I have the honor that I have directed the United States attorney at San Francisco [illegible] the present but to proceed [illegible] the arrests already

[illegible] that I shall be pleased to be advised [illegible] the work of preventing smuggling the alleged slave traffic [illegible] Immigration Department. I think Department [illegible] United States [illegible] may properly be [illegible]

Very respectfully,

[illegible]
Attorney-General.

Secretary of the Treasury.

Telegram.

San Francisco, Cal., [illegible]

General Wyman, Washington.

[illegible]

[illegible]

Wyman.

Washington, [illegible]

White, San Francisco, Cal.

[illegible]

[illegible]

San Francisco, [illegible]

General Wyman, Washington.

[illegible] regarding [illegible]

[illegible] further [illegible]

[illegible] Will request prompt [illegible]

[illegible]

WASHINGTON, *April 30, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Case at Ann Arbor was saved with yersin sent from here. The yersin here is kept in cool, dry place and is perfectly good. Do you want some sent on?

WYMAN.

SAN FRANCISCO, CAL., *April 30, 1901.*

Surgeon-General WYMAN, *Washington:*

Have plenty yersin, which has been well kept, and if as recent as Washington supply should answer purpose.

WHITE.

The "case at Ann Arbor" mentioned in above telegram was a student at the University of Michigan, who was stricken with plague and recovered. He contracted the disease while working with cultures brought from San Francisco.

MAY, 1901.

SAN FRANCISCO, CAL., *May 4, 1901.*

Surgeon-General WYMAN, *Washington:*

Please grant authority for traveling any road within radius 100 miles of San Francisco and take Flint with me. May possibly discover why cases not being found.

WHITE.

WASHINGTON, *May 4, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Authority to travel, yourself and Flint, granted as requested in to-day's telegram.

WYMAN.

WASHINGTON, *May 11, 1901.*

Surgeon WHITE, *San Francisco:*

Referring to your telegram of the 4th, Treasury Department has secret service. Are you in need of it?

WYMAN.

SAN FRANCISCO, CAL., *May 14, 1901.*

Surgeon-General WYMAN, *Washington:*

Regarding matter mentioned in your telegram of May 11, it will be a good thing. How long shall I have to wait for the person particularly desired to look out for travelers from San Francisco transferring across bay with surrounding country? Think it is likely that if we do not discover plague before June 4 the State health authorities will assert diagnosis was an error and absolutely no plague is now present in San Francisco.

WHITE.

WASHINGTON, *May 14, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Though it is understood autopsy notes are negative, no objection is made on part of Bureau to your furnishing to agents of State board.

WYMAN.

WASHINGTON, *May 15, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Referring to my telegram of May 11 regarding secret service, persons will call upon ou at once. Letter to-day.

WYMAN.

[illegible]

TREASURY DEPARTMENT, MARINE-HOSPITAL SERVICE,
[illegible], [illegible] 1901.

[illegible]

any way possible, would most strongly urge you to come within a week or ten days to discuss many important matters which can not be adequately treated by telegraph or mail. Situation in this way would be much simplified.

WHITE.

WASHINGTON, *May 22, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Replying to your telegram of to-day, you are authorized to communicate with governor's committee as requested.

WYMAN.

WASHINGTON, *May 22, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Did you receive my letters of May 15 and 16? Notwithstanding negative results thus far, Department believes it necessary to continue in patience and persistence.

WYMAN.

SAN FRANCISCO, CAL., *May 22, 1901.*

Surgeon-General WYMAN, *Washington:*

Two telegrams to-day and your letters 15th and 16th received and fully understood. My telegram last night meant that unless measures are taken to find sick we may be forced out.

WHITE.

WASHINGTON, *May 23, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Do not quite comprehend your telegram May 22, in which you say "unless measures are taken to find sick." It is supposed here that this is exactly what you are doing, as evidenced by my letters of May 15 and 16 and your telegrams indicating search being made. Possibly you refer to request of governor to inspect districts in environs and neighboring cities. Is there any difficulty in making such inspections, and is governor's assent absolutely necessary?

WYMAN.

SAN FRANCISCO, *May 23, 1901.*

Surgeon-General WYMAN, *Washington:*

Am using every means available to find sick and results negative. Consider the governor's assent necessary for outlying districts and asked it last Saturday, but received no answer to that nor any other letter addressed to him. Have asked aid of committee, who promise immediate meeting, and after receiving their answer will wire further.

WHITE.

WASHINGTON, *May 24, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

How many blocks of Chinatown have been cleaned up and how many remain? In replying, if practicable, make use of the map which accompanies commission's report.

WYMAN.

SAN FRANCISCO, CAL., *May 24, 1901.*

Surgeon-General WYMAN, *Washington:*

Eight half and 3 whole blocks done, which is all west of Stockton and all north of Washington, except half of the 2 blocks lying between Kearney and Stockton on Washington. Special actual disinfection completed in all houses infected since

[illegible] These remain [illegible] blocks, and these contain enormous subterranean [illegible] requiring great care to prevent damage. All must be moved out [illegible] the [illegible] One contains [illegible] cubic feet

WHITE.

WASHINGTON, *May* [illegible], *1901*.

WYMAN, *San Francisco, Cal.*

[illegible] immediately detailed autopsy reports thus far made.

WYMAN.

SAN FRANCISCO, CAL., *May* [illegible], *1901*.

[illegible] WYMAN, *Washington*.

[illegible] autopsy notes to-morrow and send as fast as the [illegible]

WHITE.

SAN FRANCISCO, CAL., *May* [illegible], *1901*.

[illegible] WYMAN, *Washington*.

[illegible] Wong Chong [illegible] Chinese. Six [illegible] Referring to my [illegible] Regarding [illegible] please [illegible] carefully. Under-[illegible]

WHITE.

WASHINGTON, *M*[illegible]

[illegible] [illegible] after [illegible]

WYMAN.

WASHINGTON, *M*[illegible]

[illegible] *San Francisco* [illegible]

WYMAN.

WASHINGTON, *M*[illegible]

[illegible]

WYMAN.

WASHINGTON, *M*[illegible]

[illegible] *Ma*[illegible]

WYMAN.

WASHINGTON, *M*[illegible]

[illegible] WYMAN, *Washington*.

[illegible]

WYMAN.

WASHINGTON, *May 28, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Referring to my previous telegram to-day, case referred to is undoubtedly the one mentioned in your telegram of April 27, but I can find no subsequent telegram confirming the diagnosis.

WYMAN.

SAN FRANCISCO, CAL., *May 28, 1901.*

Surgeon-General WYMAN, *Washington:*

Inference your second telegram correct. You will find negation of diagnosis my telegram May 6, no suspicious case since April 4, has been confirmed.

WHITE.

SAN FRANSISCO, CAL., *May 29, 1901.*

Surgeon-General WYMAN, *Washington:*

Wrote governor, May 18, inviting attention to small mortality and morbidity Chinatown since work began, suggesting Chinese exodus, and requesting authority to investigate outside. Letter was most friendly and courteous. Governor, May 28, wired as follows:

"You will please take notice that the State authorities have not requested you nor any other officer of the Federal Government to investigate or participate in an examination of the health conditions of the State outside the limits of the city and county of San Francisco, and that the State board of health is complying in every respect with the conditions requested by the Federal authorities and is fully carrying out the agreement with the United States Treasury Department. I have always been ready and desirous of making the most searching investigation into the health conditions of San Francisco and other points within this State, but the investigation should be conducted on fair and honest lines by those representing the Federal Government and the State. I decline to allow you to assume control of State health affairs and pursue secret and hidden investigations. The State authorities are now, and always have been, abundantly able to look after the health conditions of the State without interference. Your mere suspicion from the improved health of the Chinese district that the sick are being removed from San Francisco, is not only unwarranted as a conclusion, but I know it to be unfounded in fact. I therefore decline to authorize your agents, whose responsibility to me is unknown, to do as you have proposed and requested. If there is any city, town, or district within this State where you yourself desire to make investigation, let me know and I will send some one suitably qualified professionally to look over the matter with you, but one-sided secret examinations, such as have been witnessed in San Francisco, to its great detriment and to that of the State, will not be permitted elsewhere. If you desire to have a conference with me at any opportune time I will be pleased to comply with your wish, but communications by mail or telegraph are unsatisfactory.

"HENRY T. GAGE, *Governor.*"

Above telegram shows existing spirit more aptly than any letter that I have been able, up to date, to send you. Advise consideration in connection with matter mentioned in former telegrams as to intention of stopping work on June 9.

WHITE.

WASHINGTON, *May 30, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Referring to telegram of the governor to you, May 28, it is more objectionable in form than in substance. Have just had conversation with Moore, President's friend, just returned with Presidential party, who states he had four conversations with the governor concerning these matters and impressed latter with fairness of intent of Service, and he states that the governor is fearless and honest, but crude in expression and sensitive to Federal disregard or reflection on California. He was assured by Moore of honesty of attitude of Service, and Moore spoke in complimentary terms of fine sanitary work which has been already accomplished in Chinatown.

WYMAN.

Washington, [illegible]

[illegible] WHITE, San Francisco, Cal.

[illegible] agreement signed by the governor's committee shows they can [illegible] have been complied with, all known infected premises have [illegible] and inspection having failed to discover any cases. I saw Flexner [illegible] quite possible plague may have been disappearing. If no [illegible] suspected to recurrence, it is only natural for State authorities to wish [illegible] and if no further developments with a ten days or two weeks [illegible] advisable to stop all work except autopsies. Very desirable, however, if [illegible] cleansing of Chinatown, and while the governor's committee [illegible] with Department yesterday telegram March 22 states the gov[illegible] Washington committee agreed to disinfection of Chinatown, [illegible] Hereto, after meeting Secretary Pre[illegible] stating no plague has been found, but [illegible] work in Chinatown was as [illegible] plague Canton and [illegible] would give [illegible] If this is accepted we will keep on to finish; [illegible] permit attempt at enforcing [illegible] above. Wire [illegible] and whether [illegible]

WYMAN

[illegible] WYMAN, Washington

[illegible] Chinatown [illegible] State Board of Health and governor [illegible] Afraid [illegible] Wire [illegible] explain [illegible]

WHITE

JUNE 1 TO OCTOBER 31, 1904

June 2 Surgeon General Wyman left Washington for St. Paul, to attend the annual meeting of the American Medical Asso[illegible] leaving Surg. George Purvance, the senior division officer, in [illegible] the Bureau, the Surgeon General keeping in touch with the [illegible] by telegraph, and returning to Washington June 9. [illegible] following telegraphic correspondence will explain the situation [illegible] July [illegible], showing the return of Surgeon White, the completion [illegible] in Chinatown by Passed Assistant Surgeon Blue, and the [illegible] with the governor of California after a conferment of respon[illegible] the Service, with no [illegible] examinations.

[illegible] WYMAN, [illegible]

[illegible]

WASHINGTON, *June 7, 1901.*

Surgeon-General WYMAN, *St. Paul, Minn.:*

Instructions in your telegrams fully complied with.

PURVIANCE,
Surgeon, M. H. S.

WASHINGTON, *June 7, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Report to Bureau immediately in person for conference. Transportation will be wired you to-day.

PURVIANCE,
(For Surgeon-General.)

In accordance with above orders Surgeon White left San Francisco for Washington, June 10, P. A. Surg. Rupert Blue remaining in charge of the plague situation and to complete the cleansing of Chinatown.

[Telegrams.]

SAN FRANCISCO, CAL., *June 17, 1901.*

Surgeon-General WYMAN, *Washington:*

Will complete cleaning Chinatown June 22. Legal condemnation of a few unfit habitations by the local board of health will require two more weeks.

RUPERT BLUE.

WASHINGTON, *June 18, 1901.*

Governor GAGE, *Sacramento, Cal.:*

Dr. White has arrived and reports work of cleansing and disinfecting Chinatown, San Francisco, nearly complete and that he is satisfied the work has been done by your agents under his advice in full compliance with the understanding. A few unfit habitations remain to be condemned, which work is in progress by the San Francisco supervisors, and all will be completed within a few days. It is a matter of mutual congratulation that no cases have been found during the progress of this work and that the outlook is so encouraging. For our mutual protection and interests I believe it very essential that the supplementary work indicated in Dr. White's telegram to you of June 7 should follow, as it will cause continued satisfaction and prevent comment and criticism of both the State and Service which would otherwise be likely to follow. The Bureau here is able, by reason of its central position, to know the sentiments which prevail, and a quiet performance of the labors suggested by Dr. White is, in my opinion, advisable from every standpoint. I have read this telegram to the Secretary of the Treasury, who coincides therewith and if necessary will communicate with you himself. Will you kindly wire your views?

WALTER WYMAN,
Surgeon-General, M. H. S.

Dr. White's telegram of June 7, mentioned in the above communication, will be found in the report of Surgeon White on the work in Chinatown, hereinafter published.

[Telegrams.]

SAN FRANCISCO, CAL., *June 21, 1901.*

Surgeon-General WYMAN, *Washington:*

Disinfection of Chinatown completed to-day. I await your instructions.

BLUE.

WASHINGTON, *June 22, 1901.*

Passed Assistant Surgeon BLUE, *San Francisco, Cal.:*

Discontinue services all Chinese employees except Wong Chung.

WYMAN.

WASHINGTON, [illegible]

Passed Assistant Surgeon B[illegible], San F[illegible]

Discontinue services of Kellogg [illegible] today.

WYMAN.

SAN FRANCISCO, CAL., [illegible]

Surgeon-General WYMAN, Washington:

The local board of health contract [illegible] expires June 3[illegible]. Please advise at once whether [illegible]

[illegible]

WASHINGTON, [illegible]

Passed Assistant Surgeon B[illegible], San F[illegible]

[illegible] and accept [illegible] and surrender [illegible] Curtis [illegible] and reports.

WYMAN.

[illegible]

[illegible]

Surgeon-General WYMAN, [illegible]

[illegible]

[illegible]

25[illegible]

Since the completion of the work in Chinatown the force under Passed Assistant Surgeon Blue has been kept at work in San Francisco hunting for any plague infection which may possibly exist and performing necropsies in all suspicious cases, together with bacteriological examinations. The Service is maintaining, at 641 Merchant street, a commodious executive office, a well-equipped bacteriological laboratory, embracing several large rooms, and has leased an appropriate ground-floor apartment for use as a morgue. As will be seen by the list of cases at the beginning of this report on plague in San Francisco, there have been reported since July 1, 1901, 16 cases of plague, 4 of which recovered. Every effort is being made to discover any cases which may occur, and prompt measures are taken in each proven case to eradicate all traces of infection attendant thereon. The last case was reported October 31, having died the day before.

Whether, as Surgeon White suggests, San Francisco has been cleared of the infection and reinfected from outside places, or whether cases of the plague were successfully hidden in San Francisco itself during the cleaning of Chinatown and remained to perpetuate the disease, is still an open question despite the efforts being made to solve it. Reports from outside places have all been negative, although in every case reported as having probably originated in a locality other than San Francisco measures have been taken to trace the infection. As the case stands at present the disease, though still believed to be existent, is quiescent, and the close watch being maintained by the Service, as well as by the health officers of the coast, for any cases which may appear, would seem to render well nigh impossible any serious outbreak obtaining a dangerous headway. The work of inspection now going on in San Francisco will be maintained until assurance is complete that the infection has disappeared, or circumstances make it appear necessary to institute more radical measures.

Report of Surg. J. H. White on Work in Chinatown, San Francisco, March–June, 1901.

Treasury Department,
Office of Surgeon-General, M. H. S.,
Washington, July 1, 1901.

Sir: I have the honor to submit the following report upon the transactions of the Service under my charge in San Francisco, Cal., from the latter part of March, 1901, to the date of my departure from San Francisco for Washington on June 10, 1901.

After the return from Washington of the committee appointed by the governor of California to confer with you regarding the plague situation in the city of San Francisco, I met Governor Henry T. Gage and the said committee at the rooms of the governor at the Palace Hotel, in the city of San Francisco, and discussed with them the work to be done and the manner in which it should be done. Some days later, on March 25, the representatives of the governor, Mr. Daniel Kevane, Dr. W. P. Matthews, secretary of the State board of health of California, and Dr. William Lawlor, an agent of the State board; also the mayor and the city board of health, at the rooms of the latter organization in the City Hall, the meeting being presided over by the Hon. J. D. Phelan, mayor of San Francisco. A tentative understanding was reached at this meeting, but it was not until March 31 that the

final agreement was arrived at between the governor and the mayor, in which the tasks of the State and city were clearly defined. Under the terms of this agreement it was arranged that the State should furnish the disinfectants and the men for the work of disinfecting Chinatown, the city should provide and maintain a bacteriological laboratory, a detention barracks, a hospital, a morgue, and a garbage destructor. For the Service I undertook to inspect the sick and the dead and to supervise the work of disinfection and isolation.

Pursuant to the agreement arrived at, as above stated, the State board of health supplied such disinfectants as were used and employed, a force of six or eight physicians and a number of attendants, ranging at different times from [illegible] to 120, all of these being under the direction of Dr. Lawlor and Dr. Stone. The city carried out its agreement to provide hospital, detention barracks, morgue, laboratory, and to provide for the destruction of garbage.

The actual work did not begin until April [illegible]. The plan of procedure was as outlined in the accompanying letters addressed to the governor of California, the mayor of San Francisco, the president of the board of health of the city and county of San Francisco, and to the Chinese Six Companies, and the very prompt answers thereto on the part of the mayor and the president of the board of [illegible].

[illegible]

[illegible]

Fourth. All persons who have been in contact with cases of plague to be removed to a place of detention which shall be provided, and there kept under observation for two weeks.

Fifth. A general disinfection to be done in every building in Chinatown and a most thorough disinfection of all buildings where suspicious cases have occurred.

Sixth. The dead who have been determined to have died of plague to be placed in hermetically sealed coffins, the coffin filled with quicklime, the outside of it to be thoroughly disinfected after sealing, and immediately buried.

Seventh. All plague corpses to be interred in a spot separate from all other burials, and no corpse to be disinterred or removed within one year from the time of burial.

Finally, I ask you to place before your Six Companies and other influential and interested Chinamen this paper and obtain their written agreement to put these measures into effect.

Assuring you at the same time that if your people act in good faith with me I will carry out to the letter and in spirit every promise which I make to you.

Respectfully, yours,

J. H. WHITE, *Surgeon, M. H. S.*

Mr. CHEW WO,
Secretary Chinese Six Companies, San Francisco, Cal.

TREATMENT OF INFECTED HOUSES.

1. All houses to be fumigated for forty-eight hours with 5 per cent sulphur dioxide (5 pounds to each 1,000 cubic feet air space) with all contents in place and nothing distributed.

After this is done remove the partitions which interfere with disinfection.

2. All textiles, except such as will be damaged by heat, are to be subject to steam disinfection for twenty minutes at temperature of 215° F.

3. All goods in the house which can not be disinfected by steam must be either soaked in bichloride of mercury solution 1–1,000, or in 5 per cent carbolic-acid solution.

4. Such things as come under neither of these clauses and are incapable of disinfection, such as food stuffs, must be carried to the crematory and burned.

5. After the house is empty, the walls are to be scraped and the floors soaked and scrubbed with saturated lye solution, and then with plain water, and subsequently walls and floors washed down with 2–1,000 bichloride solution and, after drying, whitewashed thoroughly.

All rooms which have not enough light and air to be provided with additional openings, and this point is to be determined by an officer of the Marine-Hospital Service.

When possible heat will be used to thoroughly dry out the house before it is reoccupied.

An officer of the Service will be always available to advise or direct as to methods of disinfection.

J. H. WHITE, *Surgeon, M. H. S.*

EXECUTIVE DEPARTMENT, MAYOR'S OFFICE,
City and County of San Francisco, April 4, 1901.

DEAR SIR: I am in receipt of copy of your letter to Mr. Chew Wo of the Chinese Six Companies. I shall be pleased to give you every possible assistance and ask that you report to me what specific work you require of this office from time to time.

Yours, truly,

J. D. PHELAN, *Mayor.*

Dr. J. H. WHITE, *Surgeon, M. H. S.*

[Telegram.]

SACRAMENTO, CAL., *April 6, 1901.*

J. H. WHITE, *Surgeon, M. H. S., San Francisco:*

Your letter to governor of April 4, containing letter to Chew Wo, just handed to me. Will be in Frisco on Wednesday. I entertain no doubt of acquiescence of all parties. Will call on you to that end on Wednesday or Thursday.

DANIEL KEVANE.

[illegible]

[illegible]

[illegible] I have just had a conference with Dr. Lawson [illegible] that there are certain [illegible] in the [illegible] book [illegible] [illegible] that they should be considered as [illegible] that you will confer with me at the earliest [illegible] that we arrange a joint meeting between [illegible] Dr. Matthews, Dr. Lawson and [illegible] A. Knight together with [illegible] can be taken toward the [illegible]

Yours very truly,

[illegible]

J. H. Walcott,
[illegible]

[illegible]

[illegible] I have [illegible] [illegible] further [illegible] [illegible] Yours very truly,

J. H. Walcott,
[illegible]

[illegible] In reply [illegible] the following [illegible]

[illegible] the latter [illegible]

Yours very truly,

J. H. Walcott,
Surgeon-General.

WASHINGTON, *May 28, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Referring to my previous telegram to-day, case referred to is undoubtedly the one mentioned in your telegram of April 27, but I can find no subsequent telegram confirming the diagnosis.

WYMAN.

SAN FRANCISCO, CAL., *May 28, 1901.*

Surgeon-General WYMAN, *Washington:*

Inference your second telegram correct. You will find negation of diagnosis my telegram May 6, no suspicious case since April 4, has been confirmed.

WHITE.

SAN FRANSISCO, CAL., *May 29, 1901.*

Surgeon-General WYMAN, *Washington:*

Wrote governor, May 18, inviting attention to small mortality and morbidity Chinatown since work began, suggesting Chinese exodus, and requesting authority to investigate outside. Letter was most friendly and courteous. Governor, May 28, wired as follows:

"You will please take notice that the State authorities have not requested you nor any other officer of the Federal Government to investigate or participate in an examination of the health conditions of the State outside the limits of the city and county of San Francisco, and that the State board of health is complying in every respect with the conditions requested by the Federal authorities and is fully carrying out the agreement with the United States Treasury Department. I have always been ready and desirous of making the most searching investigation into the health conditions of San Francisco and other points within this State, but the investigation should be conducted on fair and honest lines by those representing the Federal Government and the State. I decline to allow you to assume control of State health affairs and pursue secret and hidden investigations. The State authorities are now, and always have been, abundantly able to look after the health conditions of the State without interference. Your mere suspicion from the improved health of the Chinese district that the sick are being removed from San Francisco, is not only unwarranted as a conclusion, but I know it to be unfounded in fact. I therefore decline to authorize your agents, whose responsibility to me is unknown, to do as you have proposed and requested. If there is any city, town, or district within this State where you yourself desire to make investigation, let me know and I will send some one suitably qualified professionally to look over the matter with you, but one-sided secret examinations, such as have been witnessed in San Francisco, to its great detriment and to that of the State, will not be permitted elsewhere. If you desire to have a conference with me at any opportune time I will be pleased to comply with your wish, but communications by mail or telegraph are unsatisfactory.

"HENRY T. GAGE, *Governor.*"

Above telegram shows existing spirit more aptly than any letter that I have been able, up to date, to send you. Advise consideration in connection with matter mentioned in former telegrams as to intention of stopping work on June 9.

WHITE.

WASHINGTON, *May 30, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Referring to telegram of the governor to you, May 28, it is more objectionable in form than in substance. Have just had conversation with Moore, President's friend, just returned with Presidential party, who states he had four conversations with the governor concerning these matters and impressed latter with fairness of intent of Service, and he states that the governor is fearless and honest, but crude in expression and sensitive to Federal disregard or reflection on California. He was assured by Moore of honesty of attitude of Service, and Moore spoke in complimentary terms of fine sanitary work which has been already accomplished in Chinatown.

WYMAN.

[illegible]

[illegible] WHITE, San Francisco, Cal.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

June 2 Surgeon-General Wyman [illegible] Washington, [illegible] St. Paul, [illegible] to attend the annual meeting [illegible] Medical Association, leaving Surg[illegible] [illegible] of the Bureau, the Surgeon-General [illegible] the [illegible], however, by telegraph [illegible] following telegraphic [illegible] July 5, showing the [illegible] work in Chinatown, San Francisco [illegible] ment with the [illegible] work by the Service [illegible]

[illegible]

WASHINGTON, *June 7, 1901.*

Surgeon-General WYMAN, *St. Paul, Minn.:*

Instructions in your telegrams fully complied with.

PURVIANCE,
Surgeon, M. H. S.

WASHINGTON, *June 7, 1901.*

Surgeon WHITE, *San Francisco, Cal.:*

Report to Bureau immediately in person for conference. Transportation will be wired you to-day.

PURVIANCE,
(For Surgeon-General.)

In accordance with above orders Surgeon White left San Francisco for Washington, June 10, P. A. Surg. Rupert Blue remaining in charge of the plague situation and to complete the cleansing of Chinatown.

[Telegrams.]

SAN FRANCISCO, CAL., *June 17, 1901.*

Surgeon-General WYMAN, *Washington:*

Will complete cleaning Chinatown June 22. Legal condemnation of a few unfit habitations by the local board of health will require two more weeks.

RUPERT BLUE.

WASHINGTON, *June 18, 1901.*

Governor GAGE, *Sacramento, Cal.:*

Dr. White has arrived and reports work of cleansing and disinfecting Chinatown, San Francisco, nearly complete and that he is satisfied the work has been done by your agents under his advice in full compliance with the understanding. A few unfit habitations remain to be condemned, which work is in progress by the San Francisco supervisors, and all will be completed within a few days. It is a matter of mutual congratulation that no cases have been found during the progress of this work and that the outlook is so encouraging. For our mutual protection and interests I believe it very essential that the supplementary work indicated in Dr. White's telegram to you of June 7 should follow, as it will cause continued satisfaction and prevent comment and criticism of both the State and Service which would otherwise be likely to follow. The Bureau here is able, by reason of its central position, to know the sentiments which prevail, and a quiet performance of the labors suggested by Dr. White is, in my opinion, advisable from every standpoint. I have read this telegram to the Secretary of the Treasury, who coincides therewith and if necessary will communicate with you himself. Will you kindly wire your views?

WALTER WYMAN,
Surgeon-General, M. H. S.

Dr. White's telegram of June 7, mentioned in the above communication, will be found in the report of Surgeon White on the work in Chinatown, hereinafter published.

[Telegrams.]

SAN FRANCISCO, CAL., *June 21, 1901.*

Surgeon-General WYMAN, *Washington:*

Disinfection of Chinatown completed to-day. I await your instructions.

BLUE.

WASHINGTON, *June 22, 1901.*

Passed Assistant Surgeon BLUE, *San Francisco, Cal.:*

Discontinue services all Chinese employees except Wong Chung.

WYMAN.

[illegible]

Assistant Surgeon [illegible]

[illegible] services of [illegible] W[illegible]

San Francisco, Cal., [illegible]

Surgeon-General W[illegible]

[illegible] board of health [illegible] advise at once whether [illegible]

[illegible]

W[illegible]

Assistant Surgeon [illegible]

[illegible] and accept proposals [illegible] W[illegible] Marine [illegible]

W[illegible]

[illegible]

Surgeon-General, W[illegible]

[illegible]

I have the honor [illegible]

W[illegible] W[illegible]
Surgeon-General M. H. S.

[illegible]

2514[illegible]

Since the completion of the work in Chinatown the force under Passed Assistant Surgeon Blue has been kept at work in San Francisco hunting for any plague infection which may possibly exist and performing necropsies in all suspicious cases, together with bacteriological examinations. The Service is maintaining, at 641 Merchant street, a commodious executive office, a well-equipped bacteriological laboratory, embracing several large rooms, and has leased an appropriate ground-floor apartment for use as a morgue. As will be seen by the list of cases at the beginning of this report on plague in San Francisco, there have been reported since July 1, 1901, 16 cases of plague, 4 of which recovered. Every effort is being made to discover any cases which may occur, and prompt measures are taken in each proven case to eradicate all traces of infection attendant thereon. The last case was reported October 31, having died the day before.

Whether, as Surgeon White suggests, San Francisco has been cleared of the infection and reinfected from outside places, or whether cases of the plague were successfully hidden in San Francisco itself during the cleaning of Chinatown and remained to perpetuate the disease, is still an open question despite the efforts being made to solve it. Reports from outside places have all been negative, although in every case reported as having probably originated in a locality other than San Francisco measures have been taken to trace the infection. As the case stands at present the disease, though still believed to be existent, is quiescent, and the close watch being maintained by the Service, as well as by the health officers of the coast, for any cases which may appear, would seem to render well nigh impossible any serious outbreak obtaining a dangerous headway. The work of inspection now going on in San Francisco will be maintained until assurance is complete that the infection has disappeared, or circumstances make it appear necessary to institute more radical measures.

Report of Surg. J. H. White on Work in Chinatown, San Francisco, March–June, 1901.

Treasury Department,
Office of Surgeon-General, M. H. S.,
Washington, July 1, 1901.

Sir: I have the honor to submit the following report upon the transactions of the Service under my charge in San Francisco, Cal., from the latter part of March, 1901, to the date of my departure from San Francisco for Washington on June 10, 1901.

After the return from Washington of the committee appointed by the governor of California to confer with you regarding the plague situation in the city of San Francisco, I met Governor Henry T. Gage and the said committee at the rooms of the governor at the Palace Hotel, in the city of San Francisco, and discussed with them the work to be done and the manner in which it should be done. Some days later, on March 25, the representatives of the governor, Mr. Daniel Kevane, Dr. W. P. Matthews, secretary of the State board of health of California, and Dr. William Lawlor, an agent of the State board; also the mayor and the city board of health, at the rooms of the latter organization in the City Hall, the meeting being presided over by the Hon. J. D. Phelan, mayor of San Francisco. A tentative understanding was reached at this meeting, but it was not until March 31 that the

final agreement [illegible] arrived at between the governor and the mayor, in which the duties of the State and city were clearly defined. Under the terms of this agreement it was arranged that the State should furnish the disinfectants and the men for the work of disinfecting Chinatown, the city should provide and maintain a bacteriological laboratory, a detention barracks, a hospital, a morgue, and a garbage destructor. For the Service I undertook to inspect the sick and the dead and to supervise the work of disinfection and isolation.

Pursuant to the agreement arrived at, as above stated, the State board of health supplied such disinfectants as were used and employed, a force of six or eight physicians and a number of attendants, ranging at different times from [illegible] to [illegible], all of these being under the direction of Dr. Lawlor and Dr. Stone. The city carried out its agreement to provide hospital, detention barracks, morgue, laboratory, and to provide for the destruction of garbage.

The actual work did not begin until April [illegible]. The plan of procedure was as outlined in the accompanying letters addressed to the governor of California, the mayor of San Francisco, the president of the board of health of the city and county of San Francisco, and to the Chinese Six Companies, and the very prompt answers thereto on the part of the mayor and the president of the board of health.

[illegible]

[illegible]

[illegible]

Fourth. All persons who have been in contact with cases of plague to be removed to a place of detention which shall be provided, and there kept under observation for two weeks.

Fifth. A general disinfection to be done in every building in Chinatown and a most thorough disinfection of all buildings where suspicious cases have occurred.

Sixth. The dead who have been determined to have died of plague to be placed in hermetically sealed coffins, the coffin filled with quicklime, the outside of it to be thoroughly disinfected after sealing, and immediately buried.

Seventh. All plague corpses to be interred in a spot separate from all other burials, and no corpse to be disinterred or removed within one year from the time of burial.

Finally, I ask you to place before your Six Companies and other influential and interested Chinamen this paper and obtain their written agreement to put these measures into effect.

Assuring you at the same time that if your people act in good faith with me I will carry out to the letter and in spirit every promise which I make to you.

Respectfully, yours,

J. H. WHITE, *Surgeon, M. H. S.*

Mr. CHEW WO,
Secretary Chinese Six Companies, San Francisco, Cal.

TREATMENT OF INFECTED HOUSES.

1. All houses to be fumigated for forty-eight hours with 5 per cent sulphur dioxide (5 pounds to each 1,000 cubic feet air space) with all contents in place and nothing distributed.

After this is done remove the partitions which interfere with disinfection.

2. All textiles, except such as will be damaged by heat, are to be subject to steam disinfection for twenty minutes at temperature of 215° F.

3. All goods in the house which can not be disinfected by steam must be either soaked in bichloride of mercury solution 1–1,000, or in 5 per cent carbolic-acid solution.

4. Such things as come under neither of these clauses and are incapable of disinfection, such as food stuffs, must be carried to the crematory and burned.

5. After the house is empty, the walls are to be scraped and the floors soaked and scrubbed with saturated lye solution, and then with plain water, and subsequently walls and floors washed down with 2–1,000 bichloride solution and, after drying, whitewashed thoroughly.

All rooms which have not enough light and air to be provided with additional openings, and this point is to be determined by an officer of the Marine-Hospital Service.

When possible heat will be used to thoroughly dry out the house before it is reoccupied.

An officer of the Service will be always available to advise or direct as to methods of disinfection.

J. H. WHITE, *Surgeon, M. H. S.*

EXECUTIVE DEPARTMENT, MAYOR'S OFFICE,
City and County of San Francisco, April 4, 1901.

DEAR SIR: I am in receipt of copy of your letter to Mr. Chew Wo of the Chinese Six Companies. I shall be pleased to give you every possible assistance and ask that you report to me what specific work you require of this office from time to time.

Yours, truly,

J. D. PHELAN, *Mayor.*

Dr. J. H. WHITE, *Surgeon, M. H. S.*

[Telegram.]

SACRAMENTO, CAL., *April 6, 1901.*

J. H. WHITE, *Surgeon, M. H. S., San Francisco:*

Your letter to governor of April 4, containing letter to Chew Wo, just handed to me. Will be in Frisco on Wednesday. I entertain no doubt of acquiescence of all parties. Will call on you to that end on Wednesday or Thursday.

DANIEL KEVANE.

[illegible]

[illegible]

DEAR DOCTOR: I have just had a conference with Dr. Law[illegible] and we have both agreed that there are certain habitations in the [illegible] which [illegible] can not be rendered sanitary by any ordinary [illegible] and which are in such a condition that they should be condemned [illegible]. I beg that you will confer with me at the earliest [illegible] in order that we may arrange a joint meeting between yourself, Dr. Matthews, Dr. Law[illegible], and Attorney[illegible] A. Knight, together with [illegible] steps can be taken toward the [illegible].

Yours very truly,

[illegible]

Dr. J. M. W[illegible],
[illegible]

[illegible]

DEAR DOCTOR: [illegible]

[illegible]

Yours very truly,

[illegible]

Dr. J. M. W[illegible],
[illegible]

[illegible]

DEAR SIR: In reply [illegible] that the following [illegible]

[illegible]

From the late [illegible]
[illegible] Dr. Decker [illegible]

Yours very truly,

[illegible]

Dr. J. H. WHITE,
Surgeon, M. H. [illegible]

SAN FRANCISCO, CAL., *April 15, 1901.*

DEAR DOCTOR: Referring to the matter of garbage, I am reliably informed that ragpickers and others are taking away much of this class of articles from the garbage brought out of the houses in Chinatown, which proceeding is, of course, dangerous, and I have therefore to suggest that the city take prompt action looking toward both the suppression of this ragpicking by the police and the removal of this garbage in a sanitary manner.

Yours, very truly,

J. H. WHITE,
Surgeon, M. H. S.

Dr. J. M. WILLIAMSON,
President Board of Health, City and County of San Francisco.

SAN FRANCISCO, CAL., *April 26, 1901.*

SIRS: Referring to the matters discussed at your hall on the night of April 24, and more particularly to your request for an exemption from autopsy on such bodies as died unmistakably of disease other than plague, and to your further request that disinfection when once begun upon a house should be completed at the earliest possible moment, and not to cause one of your countrymen to have to vacate his house on two or three successive occasions before the work is completed, I have to inform you as follows:

As soon as the work has become a little more thoroughly established, we will make every endeavor to set apart in a building now used for receiving the dead a nice apartment for the reception of people of the best class, and to provide a decent and respectable means for taking the bodies to this hall, and will not, when the cause of death is absolutely and thoroughly established as not being plague, in any way interfere with said body other than by inspection. It should be fully understood, however, that it is necessary that the body be brought to this place for inspection to be made by Dr. Flint, who is not only fully conversant with plague, but also understands the customs and sentiments of the Chinese people and desires to treat them with every possible consideration.

Regarding the second matter relating to disinfection, I would say that the work of disinfection is being done by the State board of health, and that I have used and will continue to use every effort to impress upon Dr. Lawlor's agents the necessity for finishing the work on any one house as soon as possible in order to prevent inconvenience to the occupants thereof, and I believe that Dr. Lawlor appreciates this matter and will himself do the best he can in that direction.

Yours, very truly,

J. H. WHITE, *Surgeon, M. H. S.*

PRESIDENTS AND SECRETARIES, CHINESE SIX COMPANIES,
San Francisco, Cal.

In the actually infected houses some articles were destroyed by fire, some soaked in the bichloride of mercury solution 1–1000, some subjected to 5 per cent volume sulphur-dioxide gas for a period of forty-eight hours. The general disinfection method outlined to the Chinese Six Companies in my letter of April 4 was largely applied, not only to Chinese habitations, but to many filthy specimens of the Latin quarter contingent and impinging upon the Chinese quarter. The assignment of the officers who reported to me for duty in this work is as follows:

To P. A. Surg. Rupert Blue was assigned the general supervision of disinfection in Chinatown and specifically to oversee the complete method prescribed for infected houses.

Asst. Surgs. H. B. Parker, W. C. Billings, G. M. Corput, and D. M. Currie were each to supervise the work of from twenty to thirty disinfectors in carrying out the general method, and to carefully search for and point out hidden places needing disinfection.

Asst. Surg. M. J. White and Acting Asst. Surgs. J. M. Flint and H. L. A. Ryfkogel were to inspect all sick and dead, to make autop-

[illegible] on all the latter, and to pursue bacteriological investigations in all cases which might be in the slightest degree suspicious.

These officers in their inspections were accompanied and very much assisted by Mr. Wong Ching, and there were employed to aid them in the work allotted to them the necessary attendants for the laboratory and morgue.

Hosp. Steward F. H. Peck and Laboratory Attendant Lundgren were to superintend the work of the special disinfectors in actually infected houses, working under the general supervision of Passed Assistant Surgeon Blue.

On the second day of actual work, April 5, I became suspicious that all the sick were not shown to us, and called upon Mr. Chew Wee, the secretary of the Chinese Six Companies, who had agreed to render us the same aid as his predecessor, Wong Chow, rendered the plague commission in February of this year. Indeed, the work of inspection having begun some time in advance of disinfection, my suspicions were aroused before this time. I informed Chew Wee that our work would and would avail nothing if we did not see all the sick and all the dead, without any exception, and that it was to the interests of the Chinaman as well as the [illegible] that the disease [illegible] eradicated, [illegible] measures thought to be necessary. On April 12, [illegible] expectation of having availed [illegible] Wong Ching [illegible] Mr. Chew Wee [illegible] that people were not keeping their [illegible] State [illegible] authorities [illegible]

[illegible] facts in this case.

[illegible]

You can see that, should the Chinese so desire, there is nothing to prevent them from taking a sick man from Chinatown to Oakland, or even to Sacramento, after nightfall or early in the morning before operations in Chinatown by your and my people have begun.

I trust that you will give this matter your earliest possible consideration.

Respectfully,

J. H. WHITE, *Surgeon, M. H. S.*

His Excellency HENRY T. GAGE,
Governor of the State of California, San Francisco, Cal.

(Same letter sent to the Hon. J. D. Phelan, mayor.)

SAN FRANCISCO, CAL., *May 18, 1901.*

GENTLEMEN: On May 7 I addressed a letter to the secretary of the Chinese Six Companies, a copy of which I inclose to you.

I have not received any response to this letter, and do not feel, therefore, that the secretary of the Chinese Six Companies has shown in this matter either good faith or common courtesy.

It is absolutely necessary that I should have access to all the sick, as otherwise the arduous and extensive work of cleansing Chinatown will be absolutely of no avail; the isolation of suspects and the immediate disinfection of houses after such suspects being as much a necessity to removing the infection of plague from Chinatown as any other portion of the measures being undertaken, and, indeed, this is the most important of all the measures. I, therefore, in the interest of the city of San Francisco and the State of California, far more than for my own personal interest in the matter, ask you to use your influence to bring about the desired end.

I have addressed another letter to the secretary of the Chinese Six Companies, a copy of which I also inclose.

Respectfully,

J. H. WHITE,
Surgeon, M. H. S.

Messrs. MCGUIRE & GALLAGHER,
San Francisco, Cal.

Messrs. McGuire & Gallagher did not answer my letter of the 18th; neither did the governor of the State respond to my letter of the same date, although he did send Mr. Daniel Kevane to my office, and this latter gentleman promised to take measures to find the sick.

These measures, which were instituted a few days later, consisted of putting in a force of 5 doctors to make a house-to-house inspection, but could not avail anything, because the Chinese can and will hide their sick, if so inclined, even were there 100 inspectors at work in Chinatown at one time. The ramifications of a house which has been orientalized are so great and so tortuous as to be utterly beyond the conception of the occidental mind.

On April 22 and 23 the agents of the State board called at the laboratory and morgue and made angry protests against an autopsy having been made without their being present, and further against any suspicion being attached to a case which was autopsied, thus showing very clearly that the agents of the State board did not desire that plague should be found. I authorized Drs. Flint and M. J. White to say to Drs. Lawlor, Stone, and Bothe, the agents of the State board, that they were courteously invited to be present at autopsies; that the hours from 10 to 3 each day were set for such work, and that they had been fully informed, and if not present it was through their own fault. They were, furthermore, authorized to inform these gentlemen that they were present at all as a courtesy and not a right, this portion of the work having been duly and officially set apart in the agreement as work to be done by the city and the Marine-Hospital Service and not by he State. There never was any objection offered at any time to the

presence of the agents of the State board at any autopsy, but I declined to have the autopsies postponed over night, not because I had no desire to be accommodating, but because the progress of putrefaction might destroy the traces of plague, if such existed, in any given case.

As in a measure confirming my suspicions that the Chinese were being removed, it may be well to state that at a meeting held on April 24 with the president of the Chinese Six Companies this president stated that at the beginning of our inspection all the feeble Chinese able to do so had left the city, and assigned this as one reason for the small number of sick which we were able to find.

After the statement of this fact, [illegible] I [illegible] the following facts:

[illegible]

It was my belief then, [illegible] into a practical certainty, that many of the [illegible] and villages have been infected by these [illegible], and [illegible] reinfecting the city of San Francisco [illegible] home in that city.

These points were [illegible] of California, dated May [illegible]

I addressed at various times letters to Dr. Law [illegible] the State board of health [illegible] of that portion of [illegible] I [illegible] five of these letters [illegible] of my letters were answered [illegible] Dr. Law [illegible] this report with the statement [illegible] accentuate the fact that [illegible] of the Service was not [illegible] the State [illegible]

Dear Doctor: I [illegible]

[illegible]

The [illegible]

[illegible]

the State and the [illegible]

Yours very [illegible]

Dr. Wm. Law [illegible]

[illegible]

[illegible] April 21, 1902.

Dear Doctor: I have [illegible] and counsel with regard to the matter [illegible] stated but it in Chinatown.

A good deal of work has been accomplished; a great many rooms have been cleansed which should have been also whitewashed, and, consequently, the whitewashing done now will put the Chinamen to a double inconvenience, which double inconvenience I wish to avoid as much as possible, and for that reason ask you to give me an answer at the earliest possible moment as to whether this work will be done.

If you personally can not give me a definite answer, please refer me to those who can.

Yours, very truly,

J. H. WHITE,
Surgeon, M. H. S.

Dr. WM. LAWLOR,
Agent State Board of Health, San Francisco, Cal.

SAN FRANCISCO, CAL., *May 4, 1901.*

SIR: Referring to the verbal request of Dr. Stone for a letter from me setting forth my opinion upon the work now being done in Chinatown, San Francisco, by the State board of health and under your personal direction, I have to say as follows:

The cleansing done in each known room of each house in the block completed and under way—practically all of that section of Chinatown north of Jackson street—has been very satisfactory, and the work with bichloride solution and lime has also been very well done so far as it has progressed.

I trust you may soon be able to condemn and destroy the rooms which have been designated as too dark and too filthy for effectual disinfection, so that the remaining original rooms may be properly cleansed and disinfected.

I am especially pleased that you destroyed the horribly filthy and vermin-ridden bedding in the old Chinese hospital (so called) on Pacific street, and in the nearby Latin den, believing disinfection of such stuff impossible by any other means than practical destruction.

You must, of course, see that I can not state that no infection remains in the section named, because we daily find hidden dens, and probably many such escape observation, and again because, except at the known plague foci, the work has been nominal in its character for most obvious reasons. This, however, in no wise reflects upon the character of the work which has been done, nor is it so intended.

Thanking you for courteous treatment, and with the statement that, while sure that we are not seeing all, nor nearly all, the sick, I wish you to fully understand that this is a matter for which I hold the Chinese alone responsible.

I am, very respectfully,

J. H. WHITE, *Surgeon, M. H. S.*

Dr. WM. LAWLOR,
Agent State Board of Health, San Francisco, Cal.

SAN FRANCISCO, CAL., *May 21, 1901.*

DEAR DOCTOR: I have incidentally learned to-day that members of your staff are under the impression that my officers have forbidden the spraying with bichloride of a certain set of quarters which were being disinfected under the direction of Dr. Billings.

I wish to say, in this connection, that I do not object at any time nor in any place to additional measures of disinfection being superadded to those prescribed by me or by my officers, and that in the case mentioned, which case I think was one referred to me by Dr. Billings, I stated to the doctor that he should not insist upon the bichloride spraying because it did not appear to be an absolute necessity, no apparent suspicion attaching to the house in question.

If, however, the State forces desire to force the issue with the people residing in that house, and spray the room or rooms in question, I trust you will fully understand that I have no possible objection to its being done, nor have I any objection to the work being carried to the limit of a thorough disinfection of every house which is handled.

Trusting that this may remove all misunderstandings in this matter,

I am, sincerely, yours,

J. H WHITE, *Surgeon, M. H. S.*

Dr. WM. LAWLOR,
Agent State Board of Health, San Francisco, Cal.

[illegible]

On May 21 I obtained the following self-explanatory letter from Mr. J. Winfred Pearson, and as will be observed, I immediately addressed a letter to Dr. Lawlor on the subject, this being one of the five letters which he failed to answer. I further addressed a letter on the same date to Mr. J. P. Young, the chairman of the governor's special plague commission, [illegible] stating the frankness and fairness with which [illegible] work was to be carried out, that every report of [illegible] was open to the inspection of any person who had any legitimate interest in the matter. I further [illegible] addressed in this letter to Mr. Y[illegible] that I had learned that it was the intention of the State Board of Health of Louisiana to [illegible] be responded to, [illegible] that he would bring the matter to the attention of the governor.

[illegible]

[illegible]

[illegible]

[illegible] expected, and

position is now occupied by Mr. Chew Wo, who has agreed to render us the same character of assistance as was rendered to the commission, but he has delegated this work to certain interpreters, and apparently is not taking the interest in the matter which was taken by his predecessor. We desired to have Mr. Wong Chung duly accredited by the Chinese Six Companies to assist us in this matter; but despite two letters to the said companies requesting that credentials be given Mr. Wong, no progress has been made in this direction, and the number of sick shown to us is decreasing rather than otherwise.

I shall send you to-morrow morning letters which I have addressed to his excellency the governor, to the Chinese consul, and to Mr. Chew Wo in my endeavor to correct this matter, and I request that you give this letter and the inclosed correspondence your attention at the earliest possible moment.

There is still another matter which I desire to lay before you, which is as follows:

I have learned from various sources that there is a disposition on the part of the representatives of the State board of health to misinterpret the actions of the officers of this service and myself, and in this connection I wish to say to you, as I have repeatedly said to the gentlemen above mentioned, that every act of my subordinates or myself, and every record of my office is open for inspection to any person who has any legitimate interest in this matter. Nothing is concealed, and there are absolutely no ulterior motives in anything that we have done or have yet to do. Of course the remarks which have come to me may simply be rumors and be without warrant in fact, but I think it wise, nevertheless, to embrace this opportunity to state my position and that of my officers so clearly that there can be no just cause for misunderstanding us.

Respectfully,

J. H. WHITE,
Surgeon, M. H. S.

Hon. J. P. YOUNG,
Chairman, Chronicle Building, San Francisco, Cal.

SAN FRANCISCO, CAL., *May 22, 1901.*

SIR: Since my letter to you on the 21st I have been informed that it is the intention of the State authorities, in the event of our not finding and identifying a case of plague before the 9th day of June, to stop work in Chinatown; and as this is a matter of very grave importance, in view of the facts stated in my previous communication, I beg that you will take this matter also into consideration and inform me whether or not this intention actually exists.

I am not in a position to quote the person who gave me this rumor, but simply give it to you as a rumor and with the request for information as to whether it has any foundation.

Respectfully,

J. H. WHITE,
Surgeon, M. H. S.

Hon. J. P. YOUNG,
Chairman, Chronicle Building, San Francisco, Cal.

EDITORIAL DEPARTMENT SAN FRANCISCO CHRONICLE,
San Francisco, May 22.

DEAR SIR: I beg to acknowledge your communications of 21st and 22d instant, and to say in reply that I will bring the matter to the attention of the gentlemen who have been acting in an advisory capacity to the governor, and that as soon as we can confer on the subject I will communicate with you.

Very truly,

JOHN P. YOUNG.

Dr. J. H. WHITE.

Another matter, and one which may serve to show the disinclination on the part of the Chinese Six Companies to afford any opportunity for arriving at correct conclusions with regard to the number of plague cases in Chinatown, is shown in the accompanying correspondence with the Six Companies and their attorneys, growing out of my desire to employ Mr. Wong Chung, the former secretary of the Chinese Six Companies, as an interpreter or agent in finding the sick.

The Six Companies evidently had a well founded belief that Mr [illegible]ng Chung would be honest with us, and they put all manner of [illegible]cles in the way of our obtaining his services.

[illegible]

Referring to your [illegible] [illegible] Mr W[illegible] [illegible]

Yours very truly,

[illegible]

Dr [illegible] W[illegible]

[illegible]

[illegible] Mr W[illegible] [illegible]

Respectfully, [illegible]

Dr [illegible] W[illegible]

[illegible]

[illegible]

Yours very truly, [illegible]

Dr [illegible] W[illegible]

Secretary, [illegible]

[illegible]

[illegible] Your letter [illegible] all charges, [illegible] Maguire [illegible] the information [illegible] them. The later [illegible] through Mr Jon Wing.

I shall call for meeting to-morrow night, as we were very busy in these two weeks on account of having some visitors from the Presidential party to call on our office.

Yours, respectfully,

CHEW WO.

Dr. J. H. WHITE,
Marine-Hospital Service, San Francisco, Cal.

SAN FRANCISCO, CAL., *May 24, 1901.*

DEAR SIR: Referring to your letters of recent date to the Chinese Six Companies regarding Mr. Wong Chung, we are instructed by the companies to inform you that they have, in compliance with your request, notified the Chinese people that Mr. Wong Chung is employed by you for the purpose of assisting in your work in Chinatown, and that he is to be recognized by Chinese people as one of your assistants. We are also instructed to suggest to you that it must be thoroughly understood that Wong Chung is not to be compensated in any way by the Chinese Six Companies for his work, as he is not employed by them.

Yours, very truly,

MAGUIRE & GALLAGHER,
Attorneys for Chinese Six Companies.

Dr. J. H. WHITE,
Marine-Hospital Service, San Francisco, Cal.

I submit herewith a list of the worst houses in Chinatown, which I furnished, at his request, to Dr. A. A. D'Ancona for the information of the board of supervisors of the city of San Francisco. No comment on this matter appears to me to be necessary.

[Letter.]

SAN FRANCISCO, CAL., *May 25, 1901.*

DEAR DOCTOR: In accordance with your request, I furnish you herewith a list of houses in Chinatown which are in whole or in part unfit for human residence, and in order to be more specific I will check with red ink my initials opposite such houses as I deem to be so far unfit for human residence that they will need to be destroyed either in whole or in part and can not be made fit by ordinary extensive repairs.

Stockton street.—No. 914: Basement, 5 rooms without sunlight and otherwise in poor condition.

Spofford alley.—No. 34: Cellar, 5 rooms besides 6 bunks, without sunlight; very bad. No. 22½: Cellar, 5 rooms without sunlight, in very bad condition. No. 8: Cellar, 5 rooms without sunlight. Extremely bad condition. No. 10: One room and a cellar. Absolutely dark and in bad condition.

Clay street.—No. 824½: Five rooms without sunlight; floor extremely bad. No. 812: Cellar, 2 rooms without sunlight; in bad condition.

Dupont street.—No. 813: Cellar, 6 rooms without sunlight. Extremely bad general condition.

Doncomb alley.—Those habitations comprising the lower tier of the blocks bordering on this alley.

Stockton street.—No. 720: Cellar. Sleeping accommodations for about 200 men. Partly under sidewalk. Should be torn out and whitewashed, or condemned entirely.

Sacramento street—Oneida place (The ovens).—No. 823½: One room. In my opinion, the whole property in the rear of Sacramento street, touching Oneida street, and known as "the ovens," should be condemned in its entirety.

Concourt alley.—All houses on both sides of alley, from Nos. 2 to 12, inclusive, should be either torn out or condemned, except possibly No. 6 and No. 11, upstairs rooms.

Jackson street.—No. 612a: Palace Hotel (so-called) A hallway leads into a court. Upon this latter there open three rows of rooms (first, second and third floors). The first floor consists of dark rooms too filthy for description and occupied by beggars whose physical condition and abject poverty is by far the worst I have seen in Chinatown. I strongly recommend that these rooms be closed up. The second and third floors are occupied by a better class of people than those just described but the rooms themselves (with some marked exceptions) should at least be renovated and painted before being further used.

Pacific street.—Nos. 636–638: Basement of back building; chicken coop on left of rear walk.

Washington [illegible] The average [illegible]

[illegible]

On June [illegible] I had [illegible] Dr. H[illegible] M[illegible] State board of health [illegible] Mr. W[illegible] Dr. H[illegible] Matthews [illegible] present [illegible] Dr. M[illegible] was that I [illegible]

[illegible] agreed [illegible] I believed to be necessary [illegible] removal of all quarantine [illegible] the agreement with Dr. H[illegible] M[illegible] to the governor [illegible] Governor [illegible] appended hereto [illegible] Washington.

On June [illegible] board of health [illegible] as may be seen [illegible]

[illegible]

[illegible] and Messrs. Herrin and W[illegible] verbal [illegible]

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J. H. WHITE, *Surgeon, M. H. S.*

[Letter.]

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President Board of Health, City and County of San Francisco,
San Francisco, Cal.

[Telegrams.]

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Care Conductor Train No. 2, Sacramento, Cal.:

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BLUE.

[illegible]

[illegible] San Francisco [illegible] for Washington [illegible]

[illegible]

[illegible] plague [illegible] formaldehyde [illegible] 24 hour exposure

2514 [illegible]

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[illegible]

[illegible] plague [illegible] warehouses formaldehyde [illegible] per cent volume 24 hour exposure [illegible]

applied. These methods were applied to 1,180 houses and 14,117 rooms.

In dealing with persons great care was taken not to offend the susceptibilities of the Chinese, and toward the latter part of the time only such corpses were necropsied as presented suspicious indications.

In carrying out this portion of the work the city board of health had removed from Chinatown and destroyed by fire many hundreds of tons of garbage, and because of the colossal magnitude of this work and the almost incredible amount of filth removed from this district I regret that I am unable to give the exact quantity of garbage so removed and destroyed.

I desire to make acknowledgment of the very loyal and faithful performance of duty on the part of all the officers who assisted me in this work, all of them, without any exception, showing devotion to duty and deserving high praise.

Respectfully, yours,

J. H. WHITE,
Surgeon, M. H. S.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE.

SMALLPOX IN THE UNITED STATES.

As shown in a previous portion of this report, under the head of "Division of sanitary reports and statistics," smallpox prevailed during the fiscal year ended June 30, 1901, in every State and Territory in the United States except one, and, in pursuance of the plan begun in the report for 1899, the following statement is inserted, showing the number of cases and deaths for each year from and including 1895:

Summary of prevalence, 1895-1901.

1895.—November 1, 1894, to November 1, 1895 (twelve months), smallpox reported in 27 States, 2 Territories, and District of Columbia. Total, 3,347 cases and 633 deaths.

1896.—November 1, 1895, to November 1, 1896 (twelve months), smallpox reported in 21 States and 1 Territory. Total, 1,903 cases and 360 deaths.

1897.—November 1, 1896, to November 1, 1897 (twelve months), smallpox reported in 16 States and 1 Territory. Total, 371 cases and 33 deaths.

1898.—November 1, 1897, to October 1, 1898 (eleven months), smallpox reported in 23 States, 1 Territory, and District of Columbia. Total, 2,641 cases and 27 deaths.

1899.—October 1, 1898, to November 1, 1899 (thirteen months), smallpox reported in 37 States, 4 Territories, District of Columbia, and Porto Rico. Total, 10,388 cases and 457 deaths.

1900.—November 1, 1899, to November 1, 1900 (twelve months), smallpox reported in 40 States, 3 Territories, District of Columbia, and Porto Rico. Total, 18,507 cases and 812 deaths.

1901.—November 1, 1900, to November 1, 1901 (twelve months), smallpox reported in 45 States, 3 Territories, and District of Columbia. Total, 47,243 cases and 1,037 deaths.

The decreased mortality, as shown in the above statement, is probably explainable on the grounds that the number of cases was more fully reported during the year just ended, while in revious year it is probable that deaths alone were reported nount of accu- r, mild cases having escaped notice aving been re- ted as other diseases. Lo nt, therefore,

HYGIENIC LABORATORY.

I had a talk with the mayor, a representative of the council, and the city physician; explained to them what should be done, and they said that they were willing to take charge of the Indian settlement within their city limits and would do what was in their power to cooperate with the Government in stamping out the epidemic. The city physician had made a number of vaccinations, but told me the points he secured were old and unreliable, and I left him 100 of those I brought. He had already vaccinated some 30 Indians before I left.

An Indian left Saxman for Sitka, where he expected to be married, and while there developed a very distinct form of the disease, and thus communicated it to many of the native inhabitants of that place. I saw this man, and he had entirely recovered, but was distinctly pockmarked, also a number of others showing marked evidence of having had the disease. I inclose photographs of one of the Sitka cases taken by the local photographer. Altogether at Sitka there were some 70 cases, about 24 of which were isolated on Japonski Island; 30 occurred in the mission hospital, and others in the village having it, leaving with their families, as they often do, to visit friends in other places. This migratory habit has been the means of spreading the disease and makes it very difficult to isolate them properly. A whole family, with all its belongings, will be at Sitka to-day and in a few days at Killisnoo, Hoonah, or any other place where there is a native village. I might say also that this is a poor time of year to do much vaccinating among the Indians, as they are scattered all over, fishing and shooting for their winter's supply of food.

At Sitka there was a dispute over the diagnosis at first, but finally a step was taken in the right direction and an effort made toward disinfection and isolation. As I said before, about 24 cases were isolated on Japonski Island, and the houses they occupied while there were burned, together with their clothes and bedding. All the houses in the village were disinfected whether they had contained smallpox or not, and a thorough vaccination was made, which was very successful. The method used for disinfection I am not familiar with, and I am not sure of its efficiency, although if the compounds were used in sufficient amounts I have no doubt that the chlorine gas evolved would act well in destroying germ life. The following chemicals were used: Sodium chloride, manganese dioxide, and sulphuric acid.

I addressed the board of trade telling them of the importance of a thorough disinfection, the proper methods to be employed, and the necessity of having a board of health, or at least a health commissioner, who could supervise such matters on all occasions. It must be remembered that there is no organization in this town; no one seems to have any authority, and I therefore include it among the Alaskan towns where it might be necessary for the Government to take a hand in case of further trouble. At present there are no cases. One Russian was attacked by the disease, and his house was disinfected with sulphur; in a few other instances formaline was used in the form of the tablet.

At Juneau I found there had been 1 case, an Indian, who was immediately isolated on Douglas Island, and the house thoroughly disinfected by Acting Assistant Surgeon Leonhardt. At Douglas City there have been 8 cases among the Indians, all isolated on Douglas Island and all precautions taken. One case escaped from quarantine and attempted to go to Sumdum. There the natives would not allow him admittance to their houses, and he encamped on the beach some distance away and then left for other parts. This Indian is only one in many who have wandered about and been the means of carrying contagion.

There has been no smallpox at Sumdum, and Dr. Leonhardt will see that the few natives there are vaccinated. At Skagway there is no Indian village, but there have been 4 cases among the whites; these no doubt became infected while at Seattle, Wash. The first case developed the disease a few days after leaving the steamer, and another was in quarantine at Port Townsend, Wash., with the steamer *Senator;* but as a month had elapsed from that time to the onset of the disease, it is not probable that they were contaminated during their stay aboard that vessel; the remaining 2 cases were infected at the same time as the latter case. At Skagway it is most important that the authorities have the situation well in hand, as the Canadian officials are fearful that the disease may be taken across the border, and I think that City Physician Moore, of Skagway, is doing everything that can be done.

At Killisnoo the Alaska Oil and Guano Company have a plant where they manufacture fish oil and guano, but outside of this there are no white people; there is however, a large Indian village, and smallpox has been very prevalent among its inhabitants. I have seen some half dozen cases, all mild, and there are many others who have gone into isolation of their own accord some distance from the village. Some weeks ago a physician came here and vaccinated some of the natives and I vaccinated some 60 more, and I believe that at present all those who have not gone away on their customary summer excursion have been vaccinated successfully. There are no hotel accommodations here, but I was taken care of through the cour-

tain amount of vaccination done by visiting physicians at many of the smaller places, but there must be a great many natives who have as yet not been subjected to the operation.

Respectfully,

CARROLL FOX,
Assistant Surgeon, M. H. S.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

AID RENDERED BY THE REVENUE-CUTTER SERVICE.

Much assistance was rendered by the Revenue Cutter Service, not only in transporting the officers of the Service, but through their own medical officers in giving advice and assistance to stricken communities wherever it was possible for them to do so, and it is to be regretted that on account of vessels being needed for other work it was impossible for the Revenue-Cutter Service to render the further and other important assistance which was recommended in the latter part of Assistant Surgeon Fox's letter.

YELLOW FEVER.

There has been no yellow fever in the United States since the last annual report, and, with the exception of a few cases that were reported in Natchez in November of last year, there have been no cases in this country since the fall of 1899. Reports have been received of the existence of yellow fever in Brazil, Colombia, Costa Rica, Cuba, France (on a steamship at Havre), Haiti, Jamaica, Mexico, Salvador, San Domingo, and West Africa. Brazil, Cuba, and Mexico furnished a very large majority of the cases. In Cuba, from July 1 to December 31, 1900, there were 1,279 cases, with 298 deaths, a mortality of 23.3 per cent; from January 1 to June 30, 1901, 114 cases, with 30 deaths, a mortality of 26.3 per cent.

PROPOSED PLAN FOR INTERNATIONAL AGREEMENT OF AMERICAN REPUBLICS.

The plan of an international agreement of the American Republics for the sanitation of certain seacoast cities, with a view to the elimination of yellow fever, which has been referred to in two former reports, has progressed so far that, by invitation, a plan was submitted by the Surgeon-General to the chairman of the United States delegation for presentation to the conference of American States which convened in the city of Mexico October 22, 1901.

YELLOW-FEVER INSTITUTE.

Recognizing the importance of arriving at full and definite conclusions in regard to all questions concerning yellow fever, its etiology, epidemic history, method of spread, and the effect of these conclusions on quarantine and quarantine regulations, the establishment by the Service of a yellow-fever institute was determined upon, and a letter was addressed to the honorable the Secretary of the Treasury September 13, 1901, and received Department approval September 25, 1901, explaining the object of such an institute and inclosing a plan of organization for the same. Following is the letter and inclosure:

aim having been made by certain investigators that [illegible] ps the relation to yellow fever, but is only a secondary factor an per cent of cases of this disease, and that it probably also n the blood of patients suffering from other diseases, such as fever, etc., an investigation was started to determine whether anism, or organisms belonging to the parasitic group and ng it, could be found in the blood or upon the skin of patients g from the diseases prevailing in this latitude. In all, the 26 patients ill with the following diseases were examined

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

diseases, it is believed, fairly represent the average [illegible] r a general hospital in this latitude. Among the [illegible] of these was the [illegible] of the parasitic group in the least was [illegible] fore seems that those who hold to the theory that the [illegible] is only a secondary [illegible] namely, that it does not [illegible] diseases than yellow fever. [illegible] ar investigation [illegible] ort of the results [illegible] e in the blood of patients [illegible] fever in the District of Columbia, [illegible] Marine-Hospital Service.

[illegible] on as the army [illegible] tion of the mosquito [illegible] on foot to [illegible] upon quarantine [illegible] this most dreadful [illegible] plague. [illegible] A study of the [illegible] ery, which has the past [illegible] ting the disease from the patient [illegible] d from Habana, Ponce, [illegible] Orleans, [illegible] line Station, and other [illegible] n the District of Columbia [illegible]

[illegible] ments were conducted by [illegible] tures of [illegible] [illegible] were had for upon [illegible] are allowed to [illegible] progress, will be [illegible] may commence [illegible] ably a protozoon [illegible] n the most [illegible] n the search for [illegible] he basis of [illegible] question whether [illegible] ase from a [illegible] ant now to solve [illegible]

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BLUE.

[illegible] power, but was not of sufficient strength to be used as a curative agent. It was then found that in order to obtain a serum which had this desired strength it would be necessary to inoculate horses with living virulent germs. On account of our lack of facilities and stable arrangements this would not be a safe procedure and by authority work was discontinued and the horses were sold by condemnation proceedings to the highest bidder, who happened to be a firm possessing the necessary facilities and isolation for carrying on this part of the work. This proved to be fortunate, for it is very desirable to have a supply of antipest serum in this country in order to be prepared for a visitation of plague, which has threatened both of our seacoasts during recent years.

In all about [illegible] of the Haffkine prophylactic were prepared, bottled, and [illegible]. This vaccine was sent to San Francisco and all the ports on the Pacific coast, to the Philippines and Hawaiian Islands, and many other places where plague existed or threatened. A supply sufficient for any emergency was sent to each one of the 17 national quarantine stations.

The subject of the [illegible] to which such attention had been given, [illegible] the following conclusions:

[illegible]

The subject of plague is now the most important one with which the country has to deal as far as pestilential diseases are concerned. The subject will therefore be continued as one of the principal studies in the laboratory.

Disinfection Experiments.

Many experiments were made with formaldehyde gas and other substances in order to determine their practical as well as their theoretical value as disinfectants. Various substances were submitted for determination as to their germicidal properties, and reports upon the results of these investigations were made from time to time during the year. Formaldehyde gas especially was tested, more in particular as to the best methods of its production, the necessity of the presence of moisture, its penetration, and its limitations in practical use as a disinfectant. Almost all the forms of apparatus now found on the market were given practical and theoretical tests, and the results of this investigation will be made the subject of a special report. A study upon an improved formaldehyde lamp was made by Dr. Geddings. (Public Health Reports, Oct. 19, 1900.)

FORMALDEHYDE AS AN INSECTICIDE FOR MOSQUITOES.

It is now a well-established fact that formaldehyde gas, while it has great potency in destroying the lower forms of vegetable life, has little toxic effect upon animal life. In our experiments with this gas on the smaller animals, such as rabbits, mice, rats, guinea pigs, and the like, we found that the gas, even in concentrated atmospheres, was extremely irritating to the mucous membranes, but failed to produce death in these animals after a prolonged exposure. From the results obtained in practical use it is well known that the gas, no matter by what manner it is generated, does not kill cockroaches and insects of this character infesting ships. As far as the mosquito is concerned, our experiments show that the gas has a certain insecticidal value for this insect. Our experiments were all made upon the variety known as *culex pungens*, and as far as we have gone with this work it may now be stated that an exposure of twenty-four hours is sufficient to kill the mosquitoes in a room or confined space provided the gas is used in the concentration required in actual disinfection, and provided the mosquitoes have no chinks or cracks, heavy folds of drapery, or other places where they may hide from the effects of the gas. We found that a weak atmosphere of formaldehyde gas will not kill mosquitoes in twenty-four hours.

Danyz's Virus and the Destruction of Rats.

The subject of the destruction of rats has assumed great importance within recent times on account of the spread of plague to the four quarters of the globe.

In the short time since 1894, when plague broke from its Eastern confines, where it had slumbered so many years, a great mass of exact scientific knowledge has been gathered concerning the disease. The relation of the rat to the spread of the disease has especially engaged the attention of investigators.

During the great outbreaks of plague in the middle ages the unusual mortality among the rats was noticed, and it was obvious then that these animals played some rôle in the spread of the disease. We now know definitely that the rat is susceptible to plague. This rodent sickens and dies of the disease in much the same manner as man. An epidemic may be foretold by a great increase of mortality in rats, for when this occurs it may be shown that the rats first contract the disease and afterwards transmit it to man.

The destruction of rats has, therefore, become of the first importance from the standpoint of the public health and the prevention of the spread of plague.

Plague has threatened our country from both its seacoasts, and it is probable that the only reason it has not spread in San Francisco is due to the fact that the disease has not been prevalent among the rats.

In the spring of [illegible] J. Danysz described a new method for the destruction of rats by means of cultures of a certain bacillus. This [illegible] obtained from a spontaneous epidemic among harvest mice, and by means of rather complicated and artificial methods he managed to increase its virulence so that it became pathogenic for the several species of rats. The claim is made that the employment of the cultures of this bacillus, sold under the name of "Rat Virus," is efficient for the destruction of these rodents.

Work was undertaken in order to test the validity of these claims, and the results obtained [illegible].

The [illegible] known as Danysz [illegible] consists of a culture of a [illegible] belonging to the [illegible] group. It appears to be [illegible] with the [illegible] bacillus.

The organism in nature is pathogenic for mice, [illegible] spontaneous epidemics. Its virulence [illegible] raised and specialized [illegible] in the laboratory [illegible] that it has [illegible] fatal for rats by ingestion. This artificial [illegible] It may [illegible] under special [illegible] virulence [illegible] especially [illegible]

As far as [illegible] are concerned the effect depends somewhat on the amount [illegible]. Large [illegible] Small [illegible]. Rats that survive the ingestion of [illegible] Such rats [illegible] with impunity.

The infection caused in rats by eating the virus [illegible] propagating itself from rat to rat. It, therefore [illegible]

[illegible]

[illegible] that it [illegible]

[illegible] that are [illegible]

[illegible]

[illegible] of rats [illegible] most favorable for the fatal action [illegible] the case in nature that it is safe to assert [illegible] serviceable in a wild state.

Monthly Reports.

In compliance with the regulations a report upon the current work is submitted to the Surgeon General every month by the director of the laboratory. These reports show in abstract the variety and progress of the investigations being carried on.

New Laboratory Building.

An appropriation of $85,000 was made by an act of Congress, approved March 3, 1901, for a new building for the hygienic laboratory. The act provided for a site upon the old Naval Observatory grounds, and approximately 5 acres of the naval reservation were transferred to the Treasury Department for the specific purpose named in the act. The location is a commanding one upon the hill just to the west of the White House and overlooking the Potomac River, and by reason of its altitude and quietude is admirably situated for the work which the laboratory carries on. There is abundant room for the stables and outdoor runs for the animals, and the absence of car lines or heavy traffic in the immediate neighborhood makes the situation especially advantageous for microscopic and other work with instruments of precision on account of the freedom from vibration and tremor. With the approval of the Secretary of the Treasury, the appropriation has been placed upon the books of the Supervising Architect, who is now preparing the plans.

In this connection, I have the honor to recommend, in view of the future development and growth of the laboratory and its work, that it be organized somewhat on the following lines when the new building is inaugurated. The head of the laboratory should continue to be the director, corresponding to the medical officer in charge of our stations of the first class, who should have full charge of the laboratory, its work, its personnel, its property, etc., under the Surgeon General. The main workings of the laboratory could be [illegible] to four large divisions, [illegible] pharmaceutical division, and a pathological division, with a chief for each division. The [illegible] bacteriologists, botanists, pathologists, and other [illegible] in charge of one or the other of the divisions. The [illegible] the laboratory may be [illegible] executive officer and two stewards of the [illegible] clerks and stenographers.

A scientific library upon the [illegible] integral part of the laboratory.

As far as the buildings [illegible] recommendations are made.

[illegible]

Two buildings are [illegible] normal house.

1. The laboratory proper [illegible] and accommodations of a two-story [illegible] basement.

The basement should [illegible] apparatus, chemicals, supplies [illegible] and should be not less than [illegible] 14 feet ceilings

These rooms are to be fitted with shelves for the proper arrangement and storing of the objects mentioned, and should be lighted from without.

The basement should also have a room of sufficient dimensions to contain the heating apparatus for the building, a coal storage, the disinfecting apparatus used in the laboratory, an incinerator, and the pumps which will be needed for the distribution of water and vacuum supply, etc.

The first floor should contain two rooms devoted to the subject of hydrophobia, offices, a library, a reception room, a photographic room, janitor's quarters, and toilet.

The two rooms devoted to the subject of rabies must be, one a well-lighted room no less than 12 by 15 feet, the other (intended for the conservation and desiccation of the spinal cords) a dark room protected from the sun and about 10 by 10 feet. This plan contemplates the administration of the antirabic treatment in the library or office, so that it is very desirable though not absolutely necessary to have an additional room for the purpose of treating patients, which should be a cheerful, well-lighted place of good dimensions.

The office should be large enough to contain steward's desk, file cases, and the usual appurtenances of clerical work.

The library should be large enough to hold approximately 10,000 volumes and the usual arrangement for desks and chairs for reading and ready reference. The library is the only room in the building, according to this plan, which can be used as a reception and waiting room, and should therefore be connected directly with the office. The photographic room should be no less than 15 by 18 feet, and there must be a dark room about 6 by 8 feet. This photographic room is intended for photomicrographic work, and therefore must be on the first floor and so constructed and lighted as to avoid vibration as much as possible. It should be well lighted from at least three directions—west, south, and north. The dark room presents no special features outside of those found in the usual photographer's dark room.

The janitor's quarters should be sufficiently commodious for the janitor to live, for the reason that the laboratory will necessitate the presence of one man in the building both day and night.

The toilet room should contain water-closets, washstands, and a bath.

The second floor should contain two large rooms (workrooms) and two rooms for special investigation.

The large workrooms should be no less than 20 by 40 feet, with 15-foot ceilings. They should be lighted from at least three points of the compass, the principal point of light being north. The principal requirements of these rooms are abundance of light and a free and unobstructed air space. The wall space in these rooms is subsidiary to large windows. It is the intention to place a worktable before each window, and it is desirable that the window, in order to afford proper light for the desk, be no less than 4.5 by 8 feet and 2.5 feet from the floor.

The two smaller laboratories for special investigation are to be no less than 15 by 20 feet each, and must be abundantly lighted by northern light. Each one of these rooms should communicate freely with one of the large workrooms mentioned above, and still should be so arranged as to lend privacy when that may be desired.

The second floor is to contain, in addition to the four rooms mentioned above, an incubator and a cool chamber. The incubator is to be a room of special construction, about 10 by 10 feet, and should be entirely of brick construction and excluded from outside atmospheric influence. The temperature of this room will be kept constantly at 37° C., and therefore must contain special arrangements for heat regulation and ventilation. This room must be conveniently located to one of the large working rooms and its companion room for special investigation. The cool chamber is to be a similar structure, in which the temperature will be kept at about [illegible] C. It therefore must be located in a portion of the building protected from the influence of the sun and heat. In general construction it will resemble a large refrigerator.

The second floor should contain a toilet room with water closets and lavatories.

The foregoing is a brief résumé of the rooms absolutely necessary in the construction of a modern laboratory building designed to carry out work of the character which the hygienic laboratory is now doing.

There are other rooms, however, that are very desirable, and if possible should be provided for in the structure.

1. A room that will contain a precisely [illegible] space to be used in testing gaseous disinfectants. This room need not have outside light, but must have a ventilator. The walls of this room must be of a nonporous material, such as vitrified brick or glazed tiling.

2. It is very desirable to have two rooms for special investigation, one for the zoologist, and the other for [illegible], which should be done in a room devoted to that [illegible].

3. It is also submitted that the director of the [illegible] should be provided with a room where [illegible] may work undisturbed. [illegible] given for the rooms for special investigation [illegible].

GENERAL REQUIREMENTS OF THE LABORATORY.

A laboratory is [illegible] must not be luxuriously furnished, [illegible] in order to avoid vibration [illegible].

It is not necessary that the structure be [illegible] should be just to diminish [illegible].

The walls should be hard [illegible] angles in the building, that [illegible] ceilings and floors are to be [illegible].

The building should be adequately [illegible] of its exposed condition as [illegible] to prevent the excessive heat of the [illegible].

The building should be lighted [illegible] and gas should be introduced into every room in the [illegible] purposes, which would require large quantities of [illegible] than or nearly dwelling house pressure.

Almost every room in the building also needs an abundant water supply, hot and cold. In the basement there should be sufficient water supply to operate the vacuum pumps. The vacuum tubing leading from these pumps should be conducted to each workroom.

In all workrooms water, gas, vacuum, and pressure pipes are to be led to each worktable. These pipes are to be laid in pockets beneath the floor, with suitable hatches to render them accessible for inspection and repair.

There must be a dumb-waiter extending from the basement to the second floor, preferably two, one from the basement to each of the large workrooms.

In general it may be stated that the exterior architectural features are subsidiary to the internal arrangement.

The stable must consist of a building with sufficient accommodations for 10 horses and a large number of small animals. It should also have storage room for grain, fodder, and ordinary stable equipment. This stable must have a room for autopsies upon large and small animals, to be not less than 15 by 15 feet, and to have a concrete floor with a runway to a center culvert, and be abundantly lighted.

Report on International Medical and Sanitary Congresses, Etc.

The director of the hygienic laboratory having been detailed to represent the United States at the Thirteenth International Congress of Medicine and the Tenth International Congress of Hygiene and Demography, which were held in Paris during the months of August and September of 1900, his report and observations upon the proceedings of these congresses, as far as they apply to the work of the Service, will be found included in the report of the division of personnel and accounts.

These reports contain the very latest advancement and progress upon such subjects as toxins and antitoxins, immunity, cause of cancer, tuberculosis, propagation of plague, the nature of antidiphtheria serum, bacteriological examination of water, preservation of food stuffs, etc.

The director of the laboratory was also detailed to represent the country upon the international commission which was charged to revise the nomenclature of the causes of death. The work of the commission resulted in revising the Bertillon system. A complete report, as well as a translation, of the work of this commission will be found included in the report of the division of personnel and accounts.

Pan-American Exposition.

The preparation of the Service exhibit at the Pan-American Exposition, now being held at Buffalo, was placed under the charge of the director of the laboratory. Complete plans were prepared illustrating the workings of the Service in all its branches. Lack of funds rendered it impossible to carry out the complete prospectus as it had been drawn up. The exhibit, however, as finally inaugurated fairly represented the important divisions of the Service, especially the quarantine division, disinfecting apparatus, detention camps, and the work of the hygienic laboratory. The exhibit of pathogenic germs and their relation to diseases, as well as of the various instruments used in studying diseases, were fully represented in the exhibit.

An article was prepared as part of the exhibit, describing in brief the scope, the history, the personnel, the duties, and the various divisions of the Marine-Hospital Service. This article will be found in another division of the report under the heading of "Contributed articles."

APPENDIX No. 1

REPORT OF THE RESULTS OBTAINED IN A SEARCH FOR BACILLUS ICTEROIDES IN THE BLOOD OF PATIENTS SUFFERING FROM DISEASES OTHER THAN YELLOW FEVER IN THE DISTRICT OF COLUMBIA

These latter fermentation tubes were to be kept at 37° C. for three days; all that showed fermentation within this time were carried to agar slants, while those that showed no fermentation were discarded.

The agar cultures, both of the organisms which had been carried directly from the plates, and those which had been planted from the fermenting glucose tubes, were classified in this manner:

First. They were stained and divided on their morphology into two classes, namely, bacilli and other forms (cocci, etc.); the organisms that were not bacilli were studied very little, usually only on one or two of the common media.

Second. The bacilli were then examined as to their motility, and those which were unmistakably nonmotile were placed in one class, while those which were motile, or doubtful, were placed in another class.

The nonmotile bacilli, as a matter of precaution, were carried to milk and glucose boullion, and the effect upon these media noted, for, although *B. icteroides* is a very motile organism, there is always the possibility that an organism's motility may be temporarily abolished by some accidental conditions.

The motile bacilli were allowed to grow upon agar slants for several days and then divided into three classes:

First. Nonchromogenic, nonspore-bearing bacilli.

Second. Spore-bearing bacilli (chromogenic or nonchromogenic).

Third. Chromogenic, nonspore-bearing bacilli.

Of these the first class was carried still further and the two latter classes dropped.

The first class was planted in gelatin and glucose boullion, and those which did not liquefy gelatin and did ferment glucose were chosen and placed by themselves.

These latter were considered to be the only organisms which could possibly be closely related to or identical with the organism of Sanarelli, and were carefully studied upon all media.

The patients from whom the cultures were obtained were seen by Assistant Surgeon Long and myself at the Providence Hospital of this city.

The histories of the cases given below consist of an abstract of the hospital history, together with whatever information our examination could elicit.

In those cases in which we were unable to agree with the diagnosis made by the physician in charge of the ward, a note of the fact appears in the history, together with our opinion of the nature of the illness.

Many of the patients entered the hospital too sick to enable the physician to obtain a very complete history, and sometimes these patients were not seen by us until so late in the disease that all characteristic symptoms and signs had disappeared.

As a result many of the histories are brief; but we believe that in most of the cases we have given sufficient clinical data to enable those who read this report to judge the correctness of the diagnosis.

Another cause for the brevity of our histories in those cases in which we had ample data was a necessity that existed for condensing such records in order that this report might not be too lengthy.

Owing to the fact that the material at our disposal was limited, the variety of diseases was not as large as we should have liked.

We endeavored to choose those in which we thought the secondary invasion by colon or closely allied organisms would be most likely to occur.

While in no instance did we take a second specimen from the same patient we made it a rule to examine at each of our subsequent visits all of the patients from whom we had previously obtained blood in order that we might be more certain of our diagnosis and be able to give a more complete history of the case.

REPORT OF THE CASES FROM WHICH BLOOD WAS TAKEN FROM THE EAR LOBE, TOGETHER WITH THE BACTERIOLOGICAL INVESTIGATIONS OF THE SAME.

Case 1—A. H., *white; age 14 years.*—This patient's temperature had been normal for over two weeks when he was seen by us. Although still confined to his bed, convalescence was progressing without interruption. We were unable to obtain a written history of this case, but the interne in charge of the ward stated that he had suffered from a typical attack of a moderately severe typhoid. At the height of the attack Widal's reaction was positive. The visiting physician had confirmed the diagnosis. His chart showed that he had run a temperature for five weeks ranging between 100.5 and 104.8.

Physical examination of the patient made by us revealed nothing to confirm or disprove the diagnosis. Widal's test, made by Assistant Surgeon Long, showed clumping in 25 minutes in a dilution of 1 to 20.

The specimen of blood was obtained from the ear lobe in the manner described above.

[illegible]

Neither spleen enlargement nor rose spots have been noted at any time during the disease.

When examined by us she was quite emaciated, but mentally bright and appeared to be suffering from no subjective symptoms other than a sense of weakness. The nurse stated that she had been constipated throughout the attack. Physical examination showed a small area of consolidation in the left subclavicular region. Widal's test, made by Assistant Surgeon Long, gave an entirely negative reaction.

This patient's temperature gradually fell and finally reached normal about the eightieth day of her illness. Soon afterwards she was able to leave the hospital subjectively improved.

A diagnosis of probable typhoid had been made by the hospital physician. We are unable to state what disease this patient suffered from during the first week of her illness, but whatever her primary illness may have been, she had tuberculosis when seen by us.

From the ear lobe of this case we isolated: (1) A white staphylococcus; (2) a lemon-colored staphylococcus; (3) a large diplococcus; (4) a mold (penicilium glacum).

A tube of glucose bouillon was not fermented by the 1 c. c. of the original bouillon culture.

Case 6.—A. B., white; male; age, 35 years.—Family and previous history unimportant. Present trouble: For the past twenty years he has had a double inguinal hernia. It had slowly enlarged up to two weeks ago, when he entered the hospital for the purpose of undergoing operation. A few days later Ball's operation for radical cure was performed. The following day the scrotum was found to be full of a blood tinged exudate, which was aspirated only to refill. Since the day following operation he had been running a temperature of 101.6 and has experienced a great deal of pain along the right spermatic cord. Physical examination shows no signs of peritonitis. Pulse, 90; respiration, 22; Widal's test, negative.

From the blood taken from this case we isolated: (1) Staphylococcus pyogenes albus.

One cubic centimeter of the original bouillon culture does not cause the fermentation of glucose.

Case 7.—J. B., white; male; age, 52 years.—Admitted to the hospital six weeks previous. Family history: Two sisters died of tuberculosis. Previous history: Had always enjoyed good health until present trouble. Began about five months ago with cough and expectoration of muco-purulent sputum, has lost 40 pounds in weight up to the present time; has had one slight pulmonary hemorrhage. He has several times had chills in the afternoon followed by profuse sweats during the night; has suffered a great deal from dysponea during the attack. Physical examination shows increased tactile fremitus, dullness, bronchial breathing, and coarse mucous râles over the left apex. His temperature has ranged between 97 and 101; respiration, 23 to 40; pulse, 78 to 108.

Diagnosis, chronic pulmonary tuberculosis.

From this case we isolated a cocco-bacillus, taking on a bipolar stain; nonmotile; does not liquefy gelatin; acidifies, coagulates and then peptonizes milk; does not ferment either of the sugars.

One cubic centimeter of the original bouillon culture does not cause the fermentation of glucose.

Case 8.—A. O., white; age, 27.—Family and previous history can not be obtained. Present illness: Entered the hospital seventeen days previous with mania á potu. Four days ago he was taken with a pain in the right side of thorax, rapid respiration, and a sudden rise of temperature; he soon became delirious. When seen by us he presented the following clinical picture: Respiration labored, 60 per minute, face pale except over malar prominences, which showed a dusky red hue; quiet but busy delirium; body bathed in perspiration; coughs frequently and expectorates a "rusty" blood-streaked sputum; pulse, 140 per minute; bounding in character; temperature, 103.

Physical examination shows a complete consolidation of the upper lobe of the right lung; edema of the lower lobe of same lung; liver enlarged to four finger breadths below the costal border and very tender to pressure; heart sounds muffled; second pulmonary no longer audible; spleen not enlarged.

Widal's test negative. (Patient died the following night.)

Diagnosis: Croupous pneumonia with dilation of the right [illegible]

From this case there were isolated the following or[illegible] [illegible]e. Alcoholism. bearing rod with rounded ends, producing a fluores[illegible] short nonspore- milk without previous coagulation; produces indol in [illegible] [illegible] gelatin completely in four days; is quite actively motile.

cavity of a rabbit [illegible] of a forty-eight hour [illegible] growth [illegible] symptoms [illegible] of note. [illegible] new aerobic species.

2. *Bacillus* [illegible]. A short rod [illegible] stains [illegible] red, does not liquefy gelatin, produces [illegible], forms a heavy white growth on agar slant, turns litmus milk strongly alkaline, and peptonizes without previous coagulation, does not ferment either sugar, produces a moist creamy white growth on blood serum without liquefaction. One cubic centimeter of the original [illegible] tube does not cause the fermentation of glucose.

Case 9.—J. R., white, age [illegible]. Family and previous history unimportant. Present history: Seven months ago a chancre developed on upper lip, followed by enlargement of neighboring glands. A few weeks later there appeared a macular eruption over his whole body, a diagnosis of syphilis was made by the attending physician. He entered the hospital a few days ago and stated that [illegible] have previously [illegible] experienced numbness of the lower extremities [illegible] a few [illegible], after [illegible] this symptom, he was able to walk about the room, but soon became so [illegible] that he had to go to bed. Awoke the next morning completely paralyzed from the waist down.

Examination made [illegible] paralysis of the lower extremities and sphincters, and [illegible] area. His condition [illegible] of gangrene which have developed [illegible] the thighs and over the sacral region.

Diagnosis: syphilis. Hemorrhage [illegible] spinal canal causing a transverse lesion.

The patient died about [illegible] later.

From the blood of this case [illegible]

[illegible]

Present illness: [illegible]

[illegible]

Physical examination: [illegible]

[illegible]

From this case we isolated: (1) A staphylococcus. (2) A streptococcus. (3) A yellow sarcina.

One cubic centimeter of the original bouillon culture does not produce the fermentation of glucose.

Case 12.—G. T., colored; aged about 60.—Family and previous history unknown. Present trouble: Entered the hospital six days before for relief from an inguinal hernia of twenty-two years standing. The day after his entrance the operation for radical cure was performed. The day following the operation the patient had two chills. Since then his temperature has ranged between normal and 102; pulse 70 to 110; respiration 35 to 40. Owing to the dressings we were unable to examine the condition of the wound. The patient was in a stupor from which he could be aroused with difficulty. Blood taken from the ear lobe contained only a tetrad. One cubic centimeter of the original bouillon culture did not cause fermentation of glucose.

Case 13.—E. O., colored; aged 20 years; female.—Family and previous history unimportant. Present history: Entered the hospital two days previous and stated that that morning she had had a chill which lasted for three hours. Soon after the chill began she experienced a sharp stabbing pain in the right mammary region, and a dry, painful cough. Since then she has slept very little on account of the severe pain from which she suffers. Cough is accompanied by the expectoration of a "rusty" colored sputum, which is so tenacious that the sputum cup can be inverted without causing it to flow. Temperature, 102 to 104; respiration, 30 to 50; pulse, 90 to 120. Physical examination showed complete consolidation of lower lobe of right lung and beginning involvement of the upper lobe of the same lung. Second pulmonary heart sound very much accentuated. Liver not enlarged, but slightly painful to pressure. Spleen not enlarged; bowels constipated; no pain on pressure over abdomen. A few days later this patient's illness terminated by crisis. From the ear blood of this patient we isolated a white staphylococcus in pure culture.

One cubic centimeter of the original bouillon culture does not cause the fermentation of glucose.

Case 14.—R. C. W., white; aged 32 years.—Family history unimportant. Previous history: Has never had any illness which could possibly have been typhoid. Present history: About fifteen days before he was seen by us he experienced a chill, followed by a rise in temperature. For the next five days he had a recurrence of chills at irregular intervals. During this time he suffered from severe frontal headache, which continued day and night for one week. On the eighth day of his illness he took to bed. Two days later he entered the hospital. Examination made at this time showed typical rose spots scattered over abdomen. These faded two or three days later. When seen by us he was quite bright for typhoid at this stage of the disease. Tongue protruded with tremor, heavily coated; abdomen distended and painful on pressure; spleen much enlarged; pressure over it causes pain; roughened inspiration over both lungs. Temperature has ranged between 101 and 102.5; pulse, 90 to 100; respiration, 26 to 29. A few days later this patient had a complication of croupous pneumonia. For the next week he was delirious, with high temperature and very grave general condition. When last seen by us his pneumonia had cleared up. The patient died a few days later. From the blood of this case we isolated only a white staphylococcus.

One cubic centimeter of the original bouillon culture failed to ferment glucose.

Case 15.—W. S. P., white; aged 28; male.—Family history unimportant. Previous history: Had typhoid six years ago. Present illness: Patient states that he was well up to three weeks ago (?), when he had a severe chill, followed by fever and sweat. The following morning he felt much better, but that afternoon he had a return of his chill, and, after midnight, a profuse sweat. One week later he began to cough and expectorate a muco-purulent sputum. He lost flesh rapidly. For the past two weeks has experienced a constant pain in the upper region of chest.

When seen by us the patient was very much emaciated, face pallid, eyes unusually bright. Temperature, 100; respiration, 20; pulse, 105. Physical examination showed no tenderness over abdomen on deep pressure; spleen about normal size or possibly a little enlarged. Examination of the lungs showed increase of tactile fremitus, shortening of percussion note, and prolonged expiration over the right apex anteriorly.

Diagnosis, incipient phthisis (?).

From the blood of this case we isolated only one organism—a white staphylococcus.

One cubic centimeter of the original bouillon culture failed to ferment glucose.

Case 16.—J. M., white; male; age, 16 years.—Family and previous history unimportant. Present illness began four weeks before with vertigo, headache, anorexia, and diarrhea. Entered the hospital the week following. A diagnosis of typhoid fever was made by the ward physician. There was no complete history of this case,

with tremor; abdomen, slightly distended, tender to pressure, especially in the region of the ileo-cæcal valve. Spleen enlarged and soft; no rose spots have been noted. Temperature has ranged between 103 and 104.

Diagnosis, typhoid fever.

The blood of this patient was entirely sterile.

Case 22—C. R., colored, male, aged 29.—Family history unimportant. Previous history: Ten years ago patient had a continued fever which lasted for three weeks, but he does not remember the nature of this illness. When this man was first seen by us he had been confined to his bed for three weeks. He gave a history of a prodromal stage for one or two weeks before he took to his bed, during which he suffered from rigors, fever, sweat, epistaxis, and diarrhea. When seen by us his expression was apathetic; tongue, dry; gums, spongy and bleeding; teeth, covered with sordes; abdomen, distended and tender; abdominal muscles, resistant to pressure; spleen, much enlarged and tender to pressure; bowels move five or six times a day. His temperature had ranged between 101.5 and 105.2; pulse, 89 to 120, tension low; respiration, 20 to 22.

Diagnosis, typhoid fever.

From this case we isolated: (1) A grayish-white micrococcus. (2) A pearly-white staphylococcus. (3) A motile bacillus which differed from the bacillus of typhoid fever in two respects only, viz, it formed a scant but visible growth on potato and was not clumped by typhoid blood in a dilution of 1 to 10.

On agar, gelatin, sodium glycocholate agar, solidified blood serum; in broth, litmus milk, and lactose and glucose bouillon it was identical in appearance with Eberth bacillus. It did not produce indol and was actively motile.

One cubic centimeter of the original bouillon did not cause the fermentation of glucose bouillon.

Case 23—C. L., white, male, aged 43.—Family history unimportant. Previous history: Up to four months ago the patient was in Cuba; while there he suffered from several attacks of remittent malaria; disclaims having had yellow fever. Present illness: Three days previously the patient was taken with rigor and pain in left side of thorax; does not think his temperature rose very high above normal. A dry cough developed a few hours after the occurrence of the rigor. When seen by us his temperature was normal, but he still suffered from some pain in chest and persistent coughing; expectorates a mucoid sputum which is neither tenacious nor tinged with blood. Examination of the chest shows: Flatness on percussion; absence of tactile fremitus; much diminished vocal fremitus; distant breath sounds over the lower posterior portion of the thorax. Examination of the abdomen demonstrates an enlarged spleen, possibly the result of his previous malaria. Abdomen neither distended nor tender; bowels regular.

Diagnosis, pleurisy, with effusion.

From this case we isolated: (1) A spore-bearing rod. (2) A pearly-white staphylococcus. (3) An orange-colored staphylococcus. (4) A lemon-colored tetrad. (5) A mold of the genus aspergellus. (6) A mold of the genus penicillium. (7) A slender rod with rather square ends; actively motile; produces a raised, white, lobulated growth on agar; liquefies gelatin slowly; does not produce indol in Dunham's solution; produces a wrinkled growth on potato; causes a rapid peptonization of milk without previous coagulation; does not ferment either of the sugars. (8) A rod varying from a short bacillus to a very long filament; motile; produces a large, rapidly forming, thin, gray, coarsely granular colony on agar plates; a moist, slimy, gray growth on agar slant; invisible growth on potato; does not produce indol in Dunham's solution; does not produce any change in litmus milk, neither liquefies gelatin nor ferments either sugar; typhoid blood in a dilution of 1 to 15 fails either to arrest motility or bring about a clumping.

One cubic centimeter of the original bouillon culture failed to cause the fermentation of glucose.

Case 24—E. P., white, male, aged 20.—Family history: Mother died of pulmonary tuberculosis. Previous history: Had an attack of pneumonia when 1 year of age. Present trouble began about eighteen days previous, with malaise, headache, pain in back and abdomen, and constipation. Patient experienced a rise of temperature, which was especially high in the evening, but which left him at no time during the twenty-four hours. About a week later he was forced to take to bed and the following day entered the hospital. Examination on entrance showed a temperature of 101, tender, distended abdomen, and rose spots. When the patient was seen by us his face wore a dull, listless expression; tongue rather dry; abdomen distended and tender; spleen enlarged. There were several disappearing rose spots still visible over abdomen. The patient had a moderate diarrhea, which had been preceded by an obstinate constipation. There was a slight congestion of the bases of the lungs

APPENDIX NO. 2.

FILTRATION OF WATER SUPPLIES.

At request of the Committee on the District of Columbia of the United States Senate the Surgeon-General directed Passed Assistant Surgeon Geddings to prepare a paper comparing the slow sand and mechanical methods of filtration, which paper, together with the Surgeon-General's letter of transmittal, follows:

[Letter.]

TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL, M. H. S.,
Washington, January 2, 1901.

SIR: I have to acknowledge the receipt of the request of the Committee on the District of Columbia to present a paper on the relative merits of the so-called mechanical system and of the slow sand filtration system from some person in this Bureau, together with such statement thereon as I may see fit to make.

In reply I have the honor to inclose herewith a report upon this subject from P. A. Surg. H. D. Geddings, which, it seems to me, in a clear and thorough manner canvasses the relative merits of the two systems mentioned. I think proper to state that a verbal request of this same nature was received some time ago from Mr. Charles Moore, clerk of the committee; and conferring with Dr. Geddings, I learned that he had been giving this subject close and exhaustive study, particularly during the past two or three months, and the inclosed report, though brief, is the result of a very thorough sifting of the literature upon the subject, as well as of previous practical and scientific research.

I think it proper also to add that I am not prepared, neither is Dr. Geddings, to give an unalterable opinion advocating irrevocably either of the systems under consideration, as I feel that to do this would require on his part and my own somewhat of the same investigation of all the facts, local as well as scientific, which it would seem are now being inquired into by your committee; but I wish to state that, so far as Dr. Geddings's report is concerned and the statements made by him, I have studied the matter and wish to express my confidence in his conclusions.

I think it due to the committee also to give the following statement concerning the qualifications of Dr. Geddings, whose mature judgment during the thirteen years in which he has been connected with the Service has been frequently availed of in scientific matters by the Bureau. Moreover, Dr. Geddings has given special attention to the matters under consideration throughout his professional life, and has

and exceptional training and opportunities for observation in this particular line of work.

Before entering the Marine Hospital Service he was adjunct professor of chemistry in the South Carolina Medical College, making at that time water supply and water contamination a specialty. Subsequently he made a special study of bacteriology in New York and continued the same at Johns Hopkins University laboratory, and has been almost continuously engaged since in bacteriological and chemical work demanded by the Marine Hospital Service, including a detail as technical delegate representing the United States at the international conference with regard to plague, held at Venice in 189[illegible], immediately thereafter spending the greater part of a year in Koch's laboratory in Berlin and at the Pasteur Institute in Paris.

Dr. Geddings was also a member of the commission appointed by the President for scientific investigation into the cause of yellow fever. Recently he has been giving much attention to the matter of water supply of cities and has been in correspondence with the representatives of the Service in France and Belgium, who have been giving like attention to this matter and have forwarded to the Bureau the latest developments with regard to the purification of water supplies in these countries.

Attention is invited to the [illegible] accompanying Dr. Geddings's report.

Respectfully, [illegible]

WALTER WYMAN,
[illegible]

Hon. JAMES MCMILLAN,
Chairman [illegible]

[illegible]

This method of construction has been departed from in late years by substituting rows or channels of drain tile with open joints for the cobble layer, and in some instances dispensing altogether with the gravel layers. The filter being constructed, the water to be filtered is admitted, preferably from the bottom of the bed, in order to displace all air with a minimum of disturbance, and the water is then allowed to gather on the filter bed in a layer of a thickness equivalent, in general terms, to the depth of the sand layer of the filter. The process of filtration then proceeds. The water is maintained at a uniform depth; the process is at first rapid, but soon shows a falling off in quantity; turbidity is diminished and a great diminution is noted in the bacterial content of the effluent water. This last is the most important feature of the process from a hygienic point of view, and must now be described somewhat in detail.

It goes without saying that the layers of sand will arrest all particles in the water which are greater in size than the meshes or interstices of the sand grains. But more than this is needed; otherwise but few, if any, bacteria would be removed. But an interesting change now takes place in the interstices and upon the surface of the filtering layer. There is a rapid formation of a pellicle or scum upon the surface, consisting of the coarser particles suspended in the water; and these, constantly increasing in size, form a place of lodgment for the bacteria contained in the water, which rapidly aggregate into a continuous surface layer, penetrating to only a very small distance below the surface and into the channels between the particles of sand.

To this layer the Germans give the name of "Schmutzdecke," and the English the name of "bacterial felt." This layer supplies a constantly increasing resistance to the passage of water, very much diminishes the output of the filter, and is the most important factor in the bacterial purification of the water subjected to the action of the filter beds. In time this layer becomes so resistant that the action of the filter beds is almost entirely arrested; but prior to this another change in the conditions becomes evident, viz, that far from diminishing the number of bacteria found in the affluent water the effluent contains more bacteria than the crude water. This is not to be wondered at, for it can be laid down as a general axiom that in the life of every filter there comes a time when it gives back to water passed through it the bacteria separated from former affluents.

The "Schmutzdecke" or "bacterial felt," then, is at once an important factor of efficiency and a source of retarded action and possible delay in the slow sand process of filtration.

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The rate varies with many conditions, such as the ordinary practice obtaining in the country or locality, the nature of the water subjected to treatment, the fineness of the sand employed, the loss of head or initial pressure which may be determined upon, and, lastly, the vigilance which is exercised in examining the output. Turbidity in the affluent water will soon clog the filters and lead to a slow output. A fine sand will naturally filter more slowly than a coarse or coarser one, and a plant which is not carefully supervised as to bacterial efficiency will give or be permitted to give a far greater output than one in which everything else is sacrified to this end.

The output is usually expressed in gallons per square foot of filtering surface, or more generally in gallons per acre of surface per day of twenty-four hours. Expressed in these latter terms the rate reported from European cities varies from 13,895,000 gallons per acre per day in Oporto, Portugal, and 7,500,000 gallons per acre per day at Zurich, Switzerland, to the comparatively low figure of 1,655,000 per acre per day by the West Middlesex Company (London, England).

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The disadvantages are (1) the very large space needed for the construction of the filter beds; (2) the cost of constructing these beds apart from the cost of the ground upon which they are built; (3) the fact that turbidity is only partially removed and that stained or tinged waters are not improved in appearance; (4) the liability to breakage or disturbance of the "Schmutzdecke," or active filtering agency in the process; (5) the possibility that, even with an undisturbed "Schmutzdecke," the cleaning of the filters will be too long delayed, and that the water will come from the effluent with a larger bacterial content than the affluent; (6) the inclination to force the beds beyond their capacity in times of scarcity or unusual consumption of water; (7) the certainty that if the "Schmutzdecke" is broken or cracked in any given filter bed the water from that bed will be contaminated, and, if not recognized at once, that the whole contents of the storage reservoirs will be contaminated from the admixture.

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The alumina compound (a sulphate) unites with the carbonates of lime and magnesia contained in the water, and is precipitated as alumina hydroxide, a magma of gelatinous appearance and quite insoluble in water.

The reaction may be stated as follows:

$$K_2Al_2(SO_4)_4+3CaCO_3+3H_2O=3CaSO_4+K_2SO_4+3CO_2+Al_2(OH)_6.$$

This material falling to the bottom of the water mechanically entangles all suspended matter and bacteria, and is deposited in a layer upon the surface of the sand filter, from which it is removed at stated intervals by a reversed current of filtered water, thus cleaning and washing the filtering sand.

This washing can be accomplished in about fifteen minutes and at an expenditure of filtered water which need not exceed 4 per cent.

It will thus be seen that the action of the alum is to form rapidly and artificially a layer or coating upon the surface of the filter to replace the "bacterial felt" layer of the English system.

A further action of the precipitated aluminum hydroxide is to unite with the dissolved coloring matters of tinged or stained waters, removing them, and producing a clear and sparkling product, which can not be arrived at by the English system.

It must be distinctly understood that the addition of alum is an essential in this process, as the very rapid passage of the water through the sand layer without it would simply amount to a straining and would not remove the bacteria. It must also be borne in mind that in order to effect a successful sedimentation by the use of alum the water must contain carbonates of lime and magnesia, either in suspension or in solution. The chemical reaction shown above can not take place in their absence, but in the rare cases in which there is a total absence of these ingredients they may be supplied and the alum system employed either by the direct addition of chalk to the water prior to the addition of the alum or by passing the crude water through a preliminary sand strainer in which a portion of the sand is replaced by crushed marble (crystallized calcium carbonate).

In all processes under the American or mechanical system the alum in solution is added to the water by mechanical appliances in quantity either sufficient to dose the carbonates present or to react upon such a proportion of the calcic contents as will effect a clarification of the water subjected to the process. Any detailed description

with tremor; abdomen, slightly distended, tender to pressure, especially in the region of the ileo-cæcal valve. Spleen enlarged and soft; no rose spots have been noted. Temperature has ranged between 103 and 104.

Diagnosis, typhoid fever.

The blood of this patient was entirely sterile.

Case 22—C. R., colored, male, aged 29.—Family history unimportant. Previous history: Ten years ago patient had a continued fever which lasted for three weeks, but he does not remember the nature of this illness. When this man was first seen by us he had been confined to his bed for three weeks. He gave a history of a prodromal stage for one or two weeks before he took to his bed, during which he suffered from rigors, fever, sweat, epistaxis, and diarrhea. When seen by us his expression was apathetic; tongue, dry; gums, spongy and bleeding; teeth, covered with sordes; abdomen, distended and tender; abdominal muscles, resistant to pressure; spleen, much enlarged and tender to pressure; bowels move five or six times a day. His temperature had ranged between 101.5 and 105.2; pulse, 89 to 120, tension low; respiration, 20 to 22.

Diagnosis, typhoid fever.

From this case we isolated: (1) A grayish-white micrococcus. (2) A pearly-white staphylococcus. (3) A motile bacillus which differed from the bacillus of typhoid fever in two respects only, viz, it formed a scant but visible growth on potato and was not clumped by typhoid blood in a dilution of 1 to 10.

On agar, gelatin, sodium glycocholate agar, solidified blood serum; in broth, litmus milk, and lactose and glucose bouillon it was identical in appearance with Eberth bacillus. It did not produce indol and was actively motile.

One cubic centimeter of the original bouillon did not cause the fermentation of glucose bouillon.

Case 23—C. L., white, male, aged 43.—Family history unimportant. Previous history: Up to four months ago the patient was in Cuba; while there he suffered from several attacks of remittent malaria; disclaims having had yellow fever. Present illness: Three days previously the patient was taken with rigor and pain in left side of thorax; does not think his temperature rose very high above normal. A dry cough developed a few hours after the occurrence of the rigor. When seen by us his temperature was normal, but he still suffered from some pain in chest and persistent coughing; expectorates a mucoid sputum which is neither tenacious nor tinged with blood. Examination of the chest shows: Flatness on percussion; absence of tactile fremitus; much diminished vocal fremitus; distant breath sounds over the lower posterior portion of the thorax. Examination of the abdomen demonstrates an enlarged spleen, possibly the result of his previous malaria. Abdomen neither distended nor tender; bowels regular.

Diagnosis, pleurisy, with effusion.

From this case we isolated: (1) A spore-bearing rod. (2) A pearly-white staphylococcus. (3) An orange-colored staphylococcus. (4) A lemon-colored tetrad. (5) A mold of the genus aspergellus (6) A mold of the genus penicillium. (7) A slender rod with rather square ends; actively motile; produces a raised, white, lobulated growth on agar; liquefies gelatin slowly; does not produce indol in Dunham's solution; produces a wrinkled growth on potato; causes a rapid peptonization of milk without previous coagulation; does not ferment either of the sugars. (8) A rod varying from a short bacillus to a very long filament; motile; produces a large, rapidly forming, thin, gray, coarsely granular colony on agar plates; a moist, slimy, gray growth on agar slant; invisible growth on potato; does not produce indol in Dunham's solution; does not produce any change in litmus milk, neither liquefies gelatin nor ferments either sugar; typhoid blood in a dilution of 1 to 15 fails either to arrest motility or bring about a clumping.

One cubic centimeter of the original bouillon culture failed to cause the fermentation of glucose.

Case 24—E. P., white, male, aged 20.—Family history: Mother died of pulmonary tuberculosis. Previous history: Had an attack of pneumonia when 1 year of age. Present trouble began about eighteen days previous, with malaise, headache, pain in back and abdomen, and constipation. Patient experienced a rise of temperature, which was especially high in the evening, but which left him at no time during the twenty-four hours. About a week later he was forced to take to bed and the following day entered the hospital. Examination on entrance showed a temperature of 101, tender, distended abdomen, and rose spots. When the patient was seen by us his face wore a dull, listless expression; tongue rather dry; abdomen distended and tender; spleen enlarged. There were several disappearing rose spots still visible over abdomen. The patient had a moderate diarrhea, which had been preceded by an obstinate constipation. There was a slight congestion of the bases of the lungs

[illegible]

Diagnosis, typhoid fever.

[illegible] the germ [illegible] penicillium.

[illegible]

We have thus examined the blood of [illegible] patients [illegible]:

1. Typhoid, 12 cases, 2 of which proved [illegible] fatal.
2. Tuberculosis, 4 cases.
3. Croupous pneumonia, 2 cases [illegible] of which was fatal.
4. [illegible] cases [illegible] temperature [illegible] cases.
5. Malaria, 1 case.
6. [illegible] 1 case, fatal.
7. [illegible] 1 case.
8. [illegible]

[illegible]

APPENDIX No. 2.

FILTRATION OF WATER SUPPLIES.

At request of the Committee on the District of Columbia of the United States Senate the Surgeon-General directed Passed Assistant Surgeon Geddings to prepare a paper comparing the slow sand and mechanical methods of filtration, which paper, together with the Surgeon-General's letter of transmittal, follows:

[Letter.]

TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL, M. H. S.,
Washington, January 2, 1901.

SIR: I have to acknowledge the receipt of the request of the Committee on the District of Columbia to present a paper on the relative merits of the so-called mechanical system and of the slow sand filtration system from some person in this Bureau, together with such statement thereon as I may see fit to make.

In reply I have the honor to inclose herewith a report upon this subject from P. A. Surg. H. D. Geddings, which, it seems to me, in a clear and thorough manner canvasses the relative merits of the two systems mentioned. I think proper to state that a verbal request of this same nature was received some time ago from Mr. Charles Moore, clerk of the committee; and conferring with Dr. Geddings, I learned that he had been giving this subject close and exhaustive study, particularly during the past two or three months, and the inclosed report, though brief, is the result of a very thorough sifting of the literature upon the subject, as well as of previous practical and scientific research.

I think it proper also to add that I am not prepared, neither is Dr. Geddings, to give an unalterable opinion advocating irrevocably either of the systems under consideration, as I feel that to do this would require on his part and my own somewhat of the same investigation of all the facts, local as well as scientific, which it would seem are now being inquired into by your committee; but I wish to state that, so far as Dr. Geddings's report is concerned and the statements made by him, I have studied the matter and wish to express my confidence in his conclusions.

I think it due to the committee also to give the following statement concerning the qualifications of Dr. Geddings, whose mature judgment during the thirteen years in which he has been connected with the Service has been frequently availed of in scientific matters by the Bureau. Moreover, Dr. Geddings has given special attention to the matters under consideration throughout his professional life, and has

had exceptional training and opportunities for observation in this particular line of work.

Before entering the Marine-Hospital Service he was adjunct professor of chemistry in the South Carolina Medical College, making at that time water supply and water contamination a specialty. Subsequently he made a special study of bacteriology in New York and continued the same at Johns Hopkins University laboratory, and has been almost continuously engaged since in bacteriological and chemical work demanded by the Marine-Hospital Service, including a detail as technical delegate representing the United States at the international conference with regard to plague, held at Venice in 1897, immediately thereafter spending the greater part of a year in Koch's laboratory in Berlin and at the Pasteur Institute in Paris.

Dr. Geddings was also a member of the commission appointed by the President for scientific investigation of the cause of yellow fever. Recently he has been giving much attention to the matter of water supply of cities and has been in correspondence with the representatives of the Service in France and Belgium, who have been giving like attention to this matter and have forwarded to the Bureau the latest developments with regard to the purification of water supplies in those countries.

Attention is invited to the [illegible] accompanying Dr. Geddings's report.

Respectfully, [illegible]

WALTER WYMAN, [illegible]

Hon. JAMES MCMILLAN, [illegible]

[illegible]

This method of construction has been departed from in late years by substituting rows or channels of drain tile with open joints for the cobble layer, and in some instances dispensing altogether with the gravel layers. The filter being constructed, the water to be filtered is admitted, preferably from the bottom of the bed, in order to displace all air with a minimum of disturbance, and the water is then allowed to gather on the filter bed in a layer of a thickness equivalent, in general terms, to the depth of the sand layer of the filter. The process of filtration then proceeds. The water is maintained at a uniform depth; the process is at first rapid, but soon shows a falling off in quantity; turbidity is diminished and a great diminution is noted in the bacterial content of the effluent water. This last is the most important feature of the process from a hygienic point of view, and must now be described somewhat in detail.

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To this layer the Germans give the name of "Schmutzdecke," and the English the name of "bacterial felt." This layer supplies a constantly increasing resistance to the passage of water, very much diminishes the output of the filter, and is the most important factor in the bacterial purification of the water subjected to the action of the filter beds. In time this layer becomes so resistant that the action of the filter beds is almost entirely arrested; but prior to this another change in the conditions becomes evident, viz, that far from diminishing the number of bacteria found in the affluent water the effluent contains more bacteria than the crude water. This is not to be wondered at, for it can be laid down as a general axiom that in the life of every filter there comes a time when it gives back to water passed through it the bacteria separated from former affluents.

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The disadvantages are (1) the very large space needed for the construction of the filter beds; (2) the cost of constructing these beds apart from the cost of the ground upon which they are built; (3) the fact that turbidity is only partially removed and that stained or tinged waters are not improved in appearance; (4) the liability to breakage or disturbance of the "Schmutzdecke," or active filtering agency in the process; (5) the possibility that, even with an undisturbed "Schmutzdecke," the cleaning of the filters will be too long delayed, and that the water will come from the effluent with a larger bacterial content than the affluent; (6) the inclination to force the beds beyond their capacity in times of scarcity or unusual consumption of water; (7) the certainty that if the "Schmutzdecke" is broken or cracked in any given filter bed the water from that bed will be contaminated, and, if not recognized at once, that the whole contents of the storage reservoirs will be contaminated from the admixture.

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The essential feature of the process consists in the addition to the water to be purified of a charge of alum or other soluble alumina salt and then admitting the water to the filter, which consists of a cylindrical vessel, placed either vertically or horizontally, and filled two-thirds full of fine sand of uniform size.

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This washing can be accomplished in about fifteen minutes and at an expenditure of filtered water which need not exceed 4 per cent.

It will thus be seen that the action of the alum is to form rapidly and artificially a layer or coating upon the surface of the filter to replace the "bacterial felt" layer of the English system.

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A sand filter receiving the same water for the same period gave a yield containing 105 bacteria per cubic centimeter. It is believed, therefore, that it must be conceded that mechanical filtration is safe and efficient.

Statistics have been given which would seem to show upon their face that the introduction of mechanical filtration in certain cities, as Elmira, N. Y., Newcastle, Pa., and Lexington, Ky., has caused, or at least been coincident with, an increase of typhoid mortality. This is hardly fair to the statistics, and is certainly unfair to the mechanical system, for no mention is made of the fact that during the period which is presumably covered by these figures there has been a gradually but constantly spreading wave of typhoid over the entire country, reaching its acme in 1898–99 with the aggregation of volunteer troops in large camps of instruction, and which has resulted in the contamination of streams and sources never heretofore suspected of contamination.

Again, it may be here stated once and for all that no filter or system of filters can or will exert any selective elimination of pathogenic bacteria. The pathogenic or sewage bacteria in any given water simply bear a relative proportion to the whole bacterial content and will be proportionately removed by any system of filtration in direct ratio to its bacterial efficiency—no more and no less. To claim otherwise is not just and can not be substantiated.

COST OF MECHANICAL FILTRATION.

As has been before stated, the various types of apparatus designed to accomplish rapid or mechanical filtration are all controlled by companies or corporations, are protected by patents, and are either sold outright or operated on a royalty. This being the case, it is obviously impossible to form as close an estimate of cost for this system as is the case in the sand method.

Again referring to the report of Colonel Miller, we note that on the basis of a daily supply of 60,000,000 gallons per diem he estimates the cost of the plant required at $1,081,377, as compared with $2,461,338 for the English or slow sand method.

The most striking point of difference occurs in the amount of ground required, viz, 163,430 square feet for the mechanical system, as against 1,111,176 square feet for the English.

The comparative cost of operating does not enter into such a communication as the present and will not be dwelt on. It is interesting, however, to note that Colonel Miller places the average amount of alum coagulent necessary per year at the low figure of 1.3 grains per gallon, a quantity which need excite not the slightest uneasiness.

The small area of ground required is easy of explanation when it is remembered that water can be passed through the sand filter at the rate of from 120,000,000 to 150,000,000 gallons per acre per day under the mechanical system, as against the maximum of 3,000,000 per acre per day in the slow sand method.

A COMPARISON OF THE SLOW SAND AND MECHANICAL SYSTEMS OF FILTRATION.

Cost of installation.—As given by most authorities and confirmed in detail by Colonel Miller, the mechanical system is much the cheaper. In the case of the proposed supply for the city of Washington the figures, as already quoted from Colonel Miller, show that the cost of the mechanical system is only about 43.5 per cent that of the slow sand filtration method.

Cost of maintenance.—This is given by Colonel Miller as follows:

Cost of operating per 1,000,000 gallons.

	Including interest charges and deterioration.	Excluding interest charges and deterioration.
English filters	$8.51	$3.44
American filters	8.75	5.61

purpose. Another valuable feature of the process would seem to be that it requires little space for the installation, a building of comparatively small size, containing the boilers, engines, dynamos, ozonizing apparatus, etc., and it would seem perfectly feasible to operate the ozonizing method in conjunction with any other system of purification to the end that a more perfect product might be obtained.

I would respectfuly submit to those having the matter in charge the adoption of such a combined system for the city of Washington, viz, a system of mechanical filtration, with all its advantages of small required area, comparatively small first cost, perfection of product as to removal of color and turbidity, and the removal of all bacteria save a number not to exceed 100 per cubic centimeter. Add to this the ozonizing process, which would definitely remove these 100 bacteria and render the water as it enters the storage reservoirs unfit for the maintenance of bacterial life, and it would seem that a water supply challenging the world for purity and wholesomeness would be the result.

Another important feature would be that the system being a double one, with both of its component parts of almost absolute perfection, there would be a minimum of danger or embarrassment from a breakdown or derangement of either of these elements. Were the mechanical filters to be temporarily out of order, the ozonizing plant would still furnish a water bacterially pure, but perhaps a little turbid or tinged.

Were the ozonizer out of action the mechanical filters would still furnish a product aesthetically pleasing and safe from a bacterial point of view. I do not pretend to go into the mechanical aspect of the subject or the engineering difficulties which it might present, but these matters might be safely left to the very high talent which now have these features of the problem under consideration.

It is needless, it is believed, in concluding this review, to apologize for its incompleteness and shortcomings. When it is remembered that large volumes have been written especially, not only on the topic of water supplies but on the single feature of their filtration, and when the differences between authorities of eminence in the matter are remembered, it will be evident that any résumé of this kind must necessarily be incomplete and savor largely of the personal beliefs and views of the reporter.

Respectfully,

H. D. GEDDINGS,
Passed Assistant Surgeon, M. H. S., Acting Director of Laboratory.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

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purpose. Another valuable feature of the process would seem to be that it requires little space for the installation, a building of comparatively small size, containing the boilers, engines, dynamos, ozonizing apparatus, etc., and it would seem perfectly feasible to operate the ozonizing method in conjunction with any other system of purification to the end that a more perfect product might be obtained.

I would respectfully submit to those having the matter in charge the adoption of such a combined system for the city of Washington, viz, a system of mechanical filtration, with all its advantages of small required area, comparatively small first cost, perfection of product as to removal of color and turbidity, and the removal of all bacteria save a number not to exceed 100 per cubic centimeter. Add to this the ozonizing process, which would definitely remove these 100 bacteria and render the water as it enters the storage reservoirs unfit for the maintenance of bacterial life, and it would seem that a water supply challenging the world for purity and wholesomeness would be the result.

Another important feature would be that the system being a double one, with both of its component parts of almost absolute perfection, there would be a minimum of danger or embarrassment from a breakdown or derangement of either of these elements. Were the mechanical filters to be temporarily out of order, the ozonizing plant would still furnish a water bacterially pure, but perhaps a little turbid or tinged.

Were the ozonizer out of action the mechanical filters would still furnish a product aesthetically pleasing and safe from a bacterial point of view. I do not pretend to go into the mechanical aspect of the subject or the engineering difficulties which it might present, but these matters might be safely left to the very high talent which now have these features of the problem under consideration.

It is needless, it is believed, in concluding this review, to apologize for its incompleteness and shortcomings. When it is remembered that large volumes have been written especially, not only on the topic of water supplies but on the single feature of their filtration, and when the differences between authorities of eminence in the matter are remembered, it will be evident that any résumé of this kind must necessarily be incomplete and savor largely of the personal beliefs and views of the reporter.

Respectfully,

H. D. GEDDINGS,
Passed Assistant Surgeon, M. H. S., Acting Director of Laboratory.

The SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

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